

Final Record of Decision Idaho Nuclear Technology and Engineering Center Operable Unit 3-13

1. DECISION SUMMARY

NOTE: *The Idaho Nuclear Technology and Engineering Center (INTEC) was formerly known as the Idaho Chemical Processing Plant (ICPP). The facility name was changed in 1998 to more accurately reflect the operational mission. The previously published supporting documents use the ICPP nomenclature.*

1.1 Site Name, Location, and Description

The Idaho National Engineering and Environmental Laboratory (INEEL) is a government facility managed by the U.S. Department of Energy (DOE), located 51.5 km (32 mi) west of Idaho Falls, Idaho, and occupies 2,305 km² (890 mi²) of the northeastern portion of the Eastern Snake River Plain (ESRP). The Idaho Nuclear Technology and Engineering Center (INTEC) is located in the south-central portion of the INEEL, as shown in Figure 1-1.

Facilities at the INEEL are primarily dedicated to nuclear research, development, and waste management. Surrounding areas are for multipurpose use and are managed by the U.S. Bureau of Land Management (BLM). The developed area within the INEEL is surrounded by a 1,295-km² (500-mi²) buffer zone used for cattle and sheep grazing. Communities nearest to the INTEC are Atomic City (south), Arco (west), Butte City (west), Howe (northwest), Mud Lake (northeast), and Terreton (northeast). In the counties surrounding the INEEL, approximately 45% is agricultural land, 45% is open land, and 10% is urban. Sheep, cattle, hogs, poultry, and dairy cattle are produced; and potatoes, sugar beets, wheat, barley, oats, forage, and seed crops are cultivated. Private individuals or the U.S. Government own most of the land surrounding the INEEL, as shown in Figure 1-2.

Public access to the INEEL is strictly controlled by fences and security personnel. State Highways 22, 28, and 33 cross the northeastern portion of the INEEL approximately 32.2 km (20 mi) from INTEC, and U.S. Highways 20 and 26 cross the southern portion approximately 8 km (5 mi) from INTEC. A total of 145 km (90 mi) of paved highways pass through the INEEL and are used by the general public.

To better manage environmental investigations, the INEEL is divided into 10 waste area groups (WAGs). Identified contaminant release sites in each WAG were grouped into operable units (OUs) to expedite the investigations and any required remedial actions. The INTEC is designated as WAG 3, which was subdivided into 13 OUs that were investigated for contaminant releases to environmental pathways. Within these 13 OUs, 101 release sites were identified. This Record of Decision (ROD) applies to 55 of the 101 sites, which, on the basis of the comprehensive remedial investigation (RI)/feasibility study (FS) for WAG 3 (OU 3-13), were identified as posing a potential risk or threat to human health and/or the environment. Of the 101 sites, 40 are recommended for "No Action" or "No Further Action." The six remaining sites (CPP-65, CPP-38, CPP-66, CPP-61, CPP-81, and CPP-82) will be managed under other OUs, WAGs, or INEEL regulatory programs.

ARA Auxiliary Reactor Area
 ANL-W Argonne National Laboratory-West
 CFA Central Facilities Area
 CTF Contained Test Facility
 EBR-I Experimental Breeder Reactor I
 EBR-II Experimental Breeder Reactor II
 IET Initial Engine Test
 INTEC Idaho Nuclear Technology and Engineering Center
 MWSF Mixed Waste Storage Facility
 NOTF Naval Ordnance Test Facility
 NRF Naval Reactors Facility
 PBF Power Burst Facility
 RWMC Radioactive Waste Management Complex
 SMC Specific Manufacturing Capability
 STF Security Training Facility
 TAN Test Area North
 TRA Test Reactor Area
 TREAT Transient Reactor Test (Facility)
 TSF Technical Support Facility
 WEDF Waste Engineering Development Facility
 WERF Waste Experimental Reduction Facility
 WROC Waste Reduction Operations Complex
 WRRTF Water Reactor Research Test Facility

Bureau of Land Management
 National Forest Land
 Private Land
 State Land
 Grazing Land

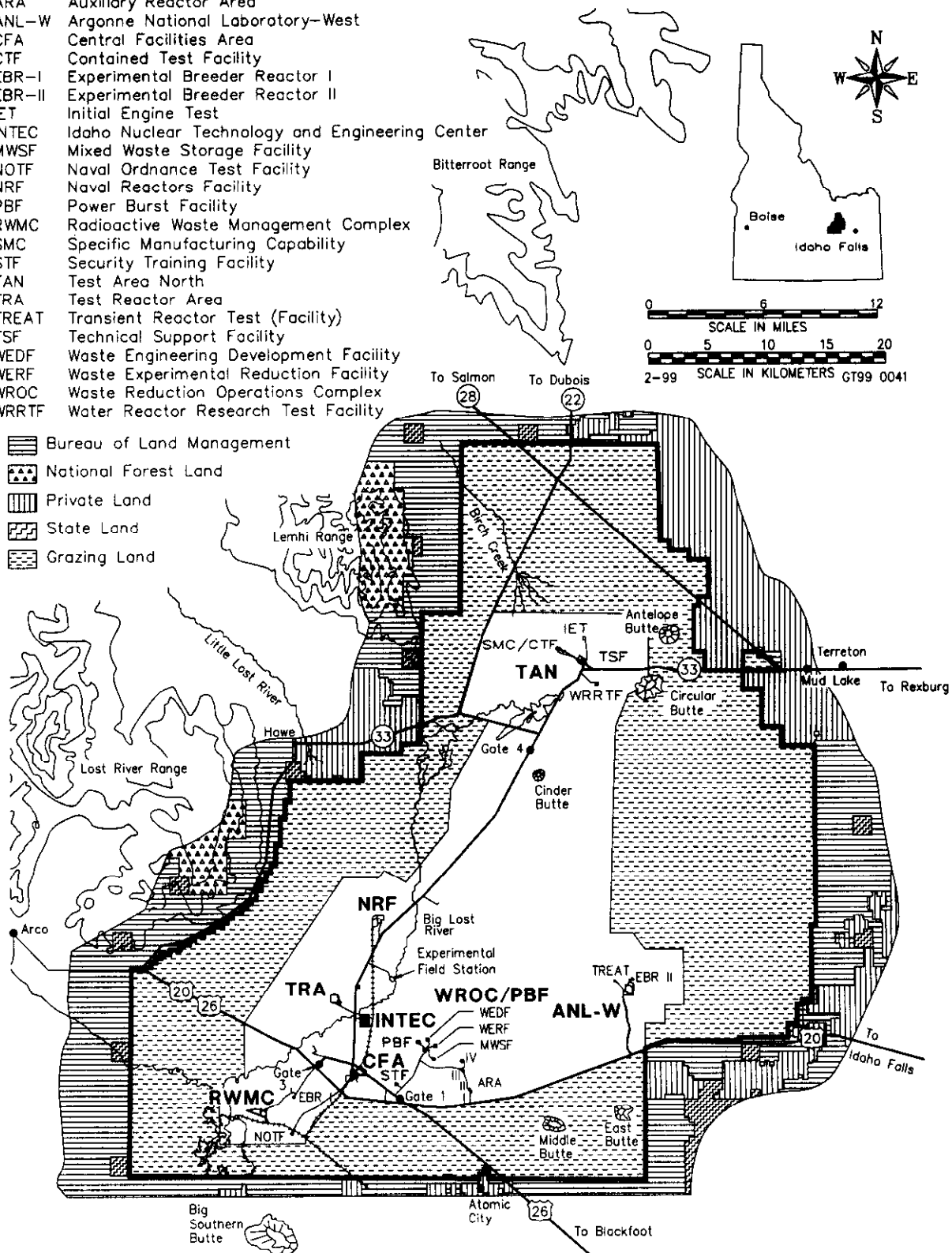


Figure 1-2. Land ownership distribution in the vicinity of the INEEL and onsite areas open for permit grazing.

The 55 release sites with identified risks greater than 1×10^{-4} or that pose a threat to human health and/or the environment require remedial action to mitigate these risks or threats. The 55 sites were divided into seven groups based on similar media, contaminants of concern (COCs), accessibility, or geographic proximity. The seven groups are:

- Group 1: Tank Farm Soils
- Group 2: Soils Under Buildings and Structures
- Group 3: Other Surface Soils
- Group 4: Perched Water
- Group 5: Snake River Plain Aquifer
- Group 6: Buried Gas Cylinders
- Group 7: SFE-20 Hot Waste Tank System.

The locations of these groups are shown in Figures 1-3 through 1-9.

During the RI/FS and subsequent remedy development, data gaps were identified. In some cases the missing data were important enough to prevent selection of final remedies. Because delays in restoration were undesirable, OU 3-14 was created. Where available information was insufficient to select a final remedy in OU 3-13, interim actions were developed for implementation in the OU 3-13 ROD with the final remedy relegated to OU 3-14. Specifically, Group 1, Tank Farm Soils, and Group 5, the Snake River Plain Aquifer (SRPA), are interim actions in this ROD and are included in OU 3-14 for final remedy selection.

To allow flexibility in managing the remediation of the various groups discussed above, an OU 3-13 area of contamination (AOC) was designated as shown in Figure 1-10. An AOC is an area of contiguous surface contamination that can be used for consolidation of remediation wastes without triggering Land Disposal Resolutions and other Resource Conservation and Recovery Act (RCRA) requirements.

Action sites and cleanup levels are based on a 1×10^{-4} carcinogenic risk. For Cs-137, contaminated soils will be cleaned up to below 23 pCi/g, for the future residential use scenario. The background Cs-137 activity is approximately 1 pCi/g, which is equivalent to a 10^{-5} excess carcinogenic risk. The acceptable risk for cleanup to future residential standards for Cs-137 is 1×10^{-4} by the year 2095. "No Further Action" sites are sites that represent a threat if land use was residential, but do not represent a threat under an industrial land use scenario.

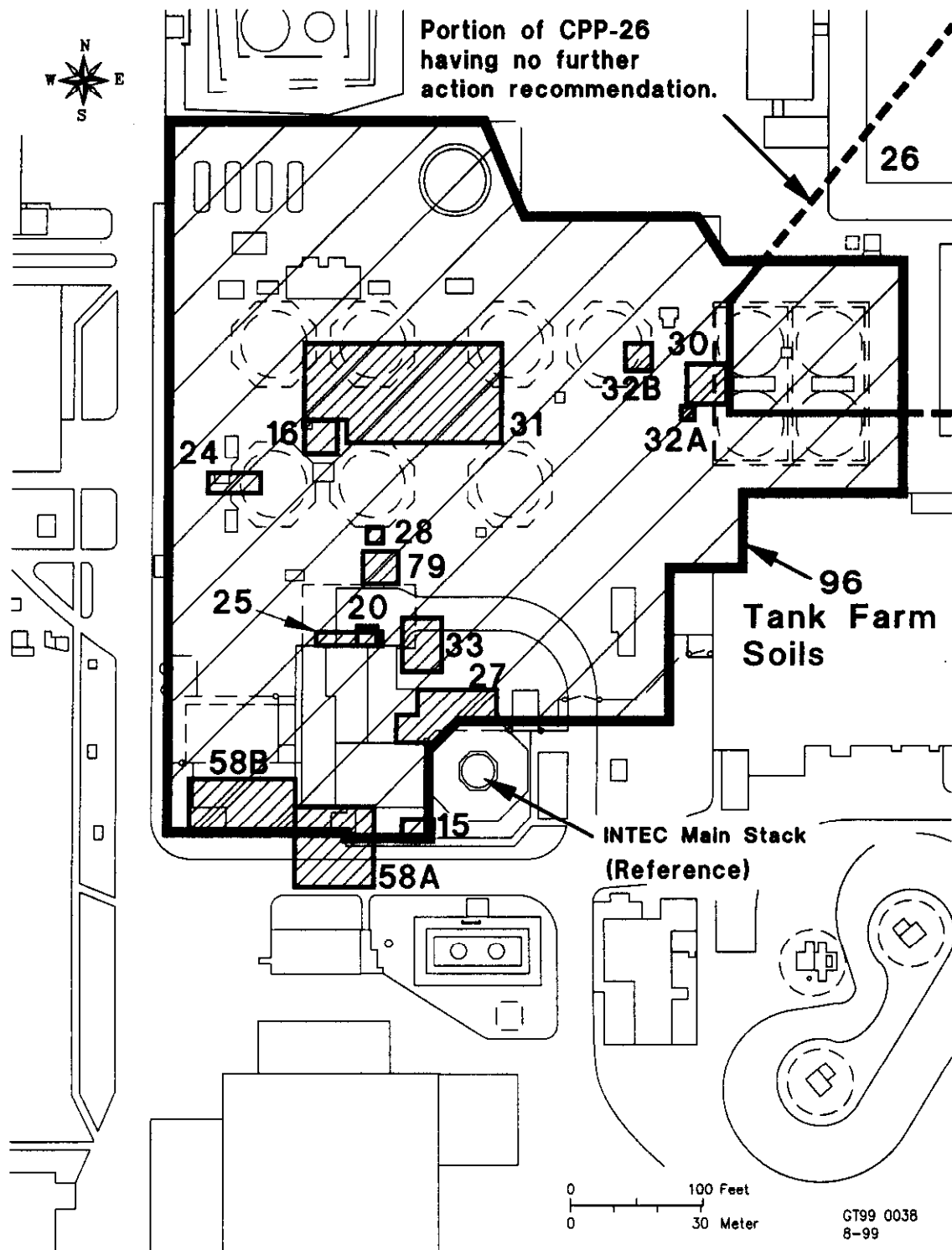


Figure 1-3. Group 1: Tank Farm Soils numbered release sites.

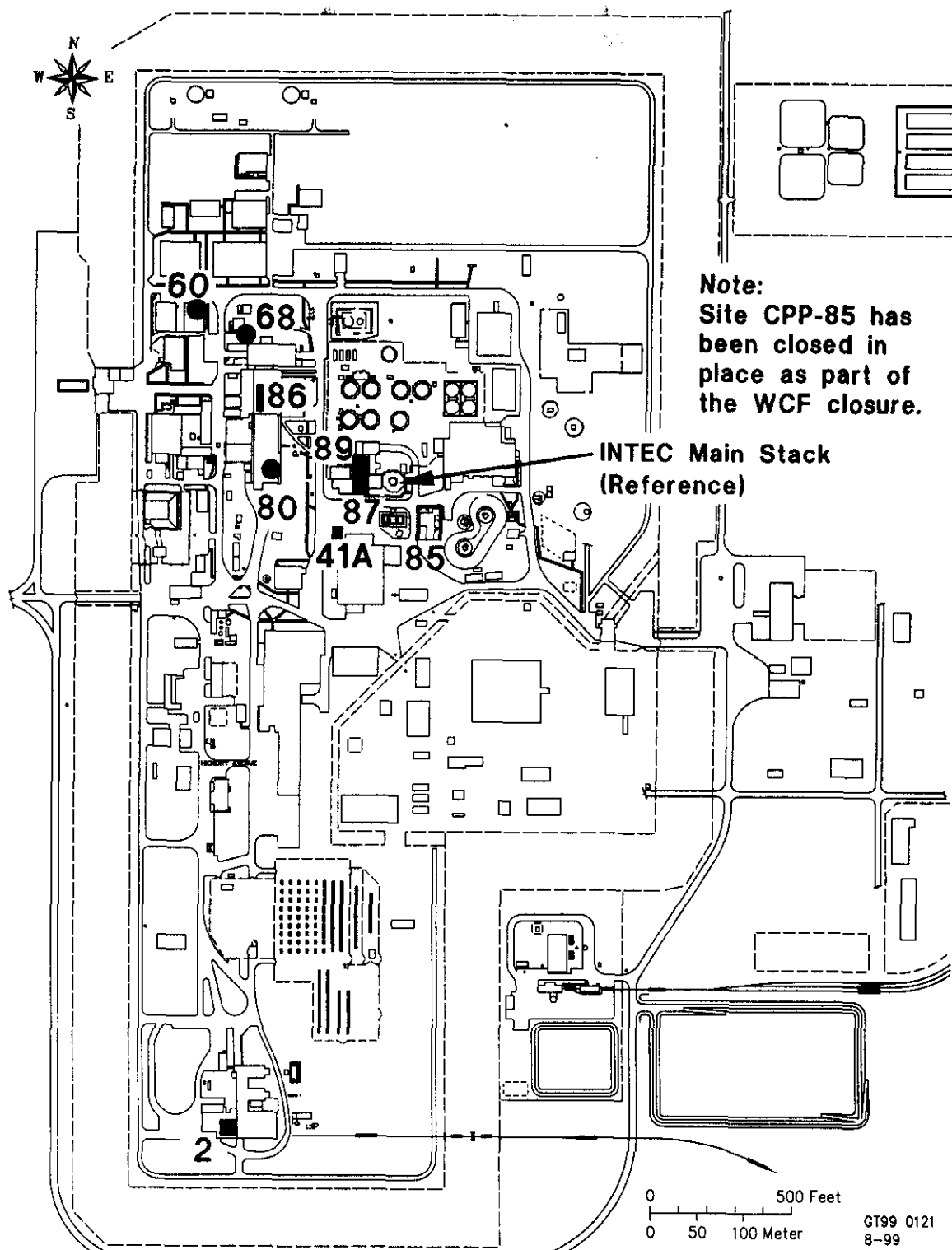


Figure 1-4. Group 2: Soils Under Building and Structures numbered release sites.

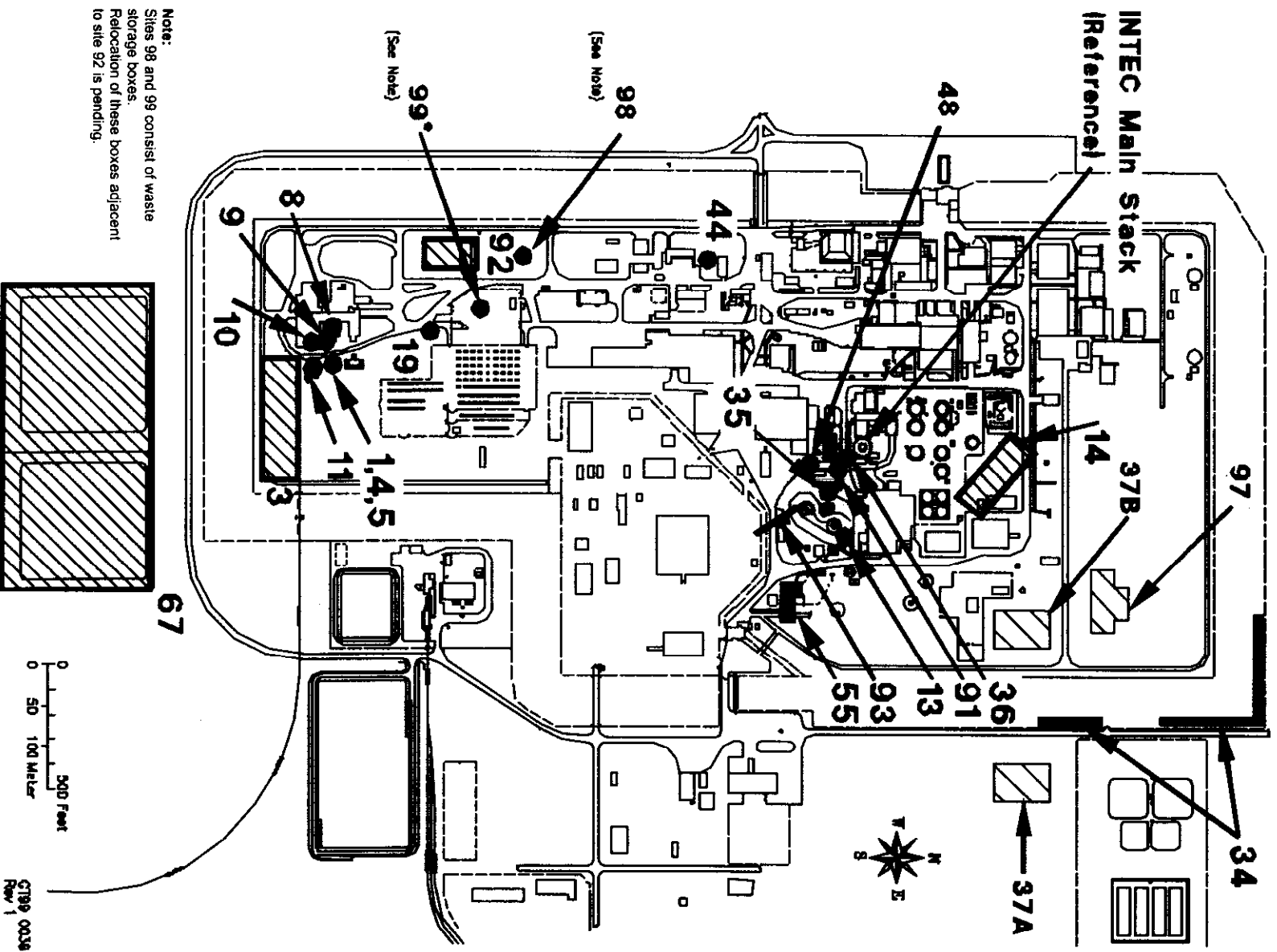
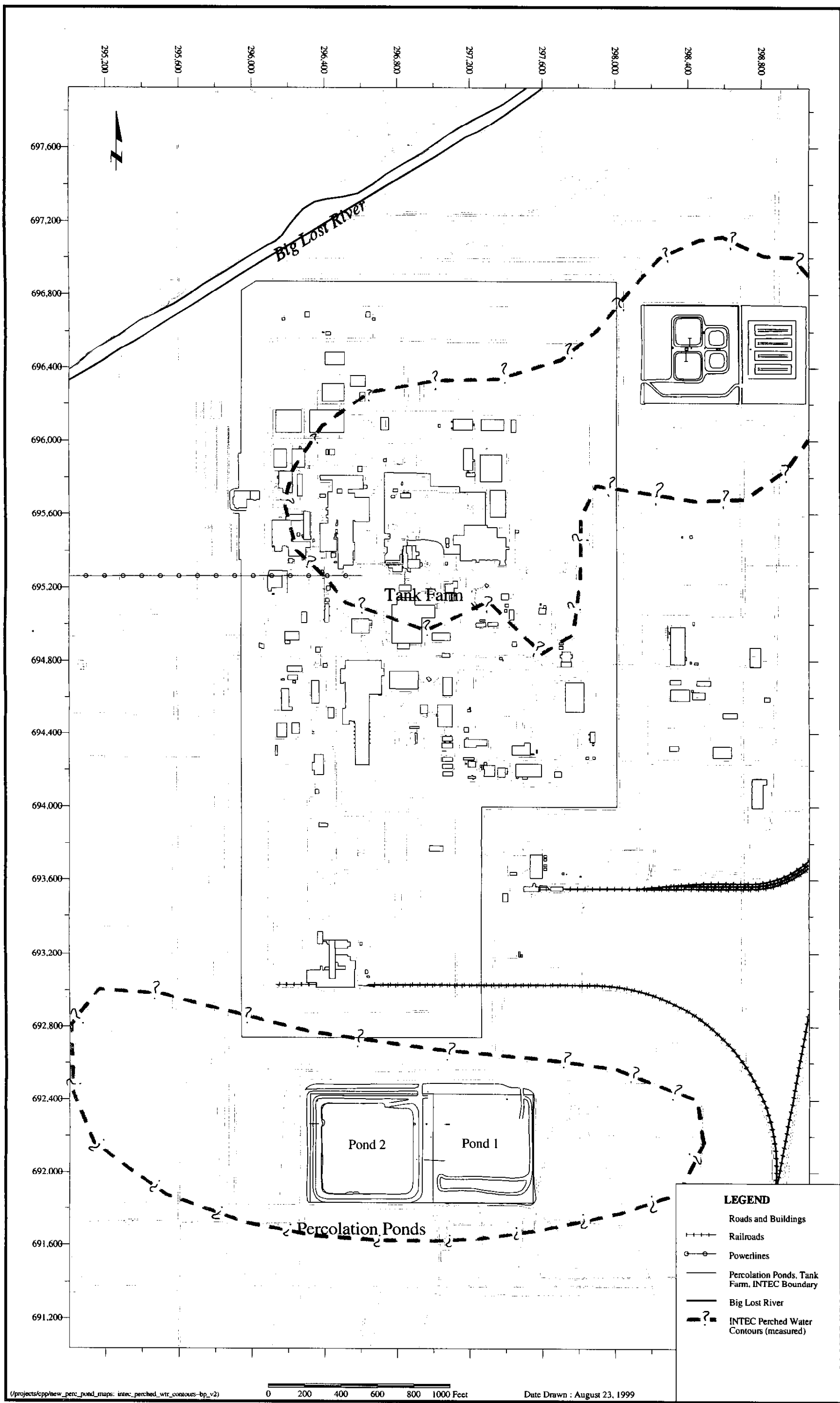


Figure 1-5. Group 3: Other Surface Soils numbered release sites.



Iodine-129 concentrations (pCi/L)

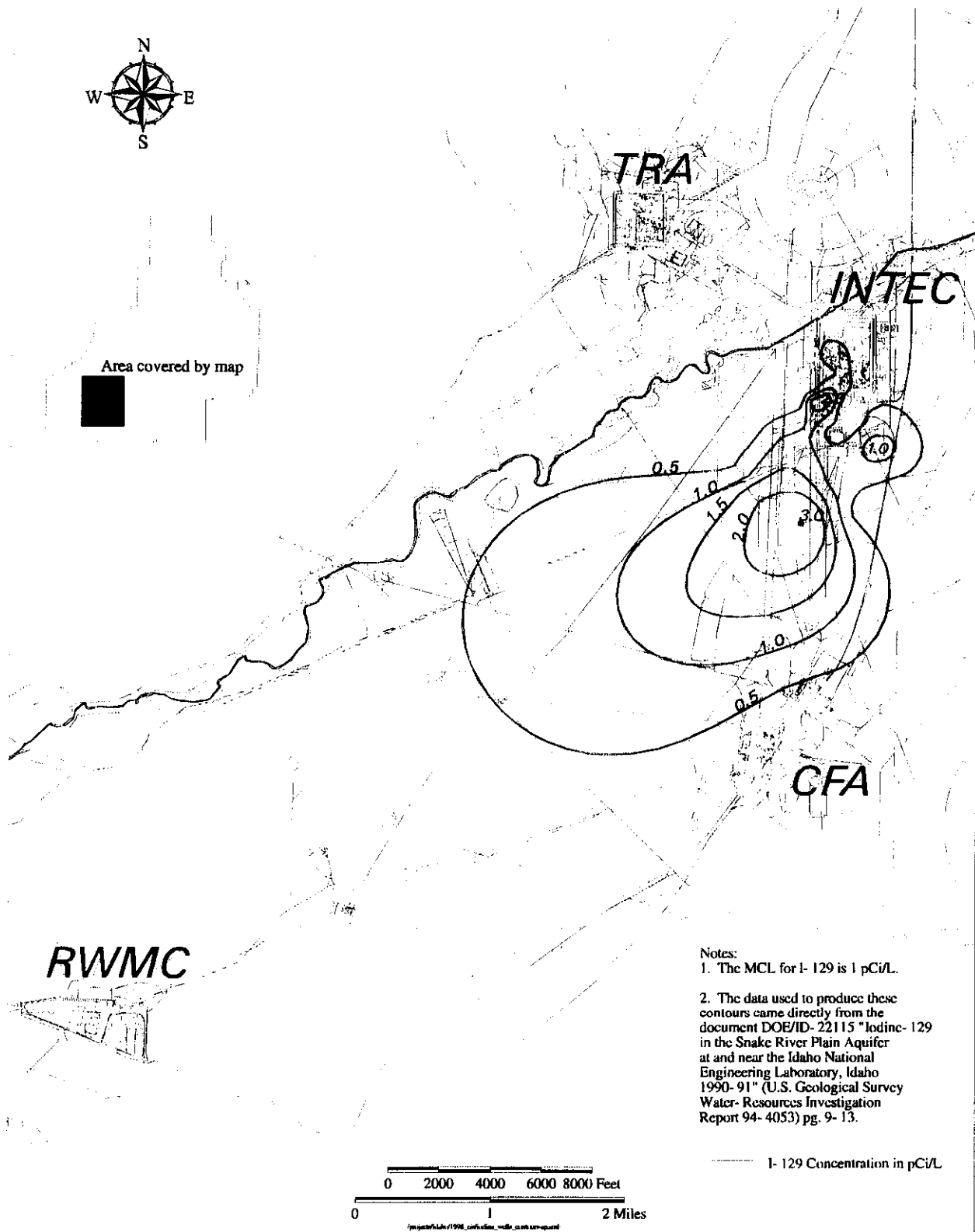


Figure 1-7. Group 5: Estimated extent of the I-129 plume in the Snake River Plain Aquifer (CPP-23).

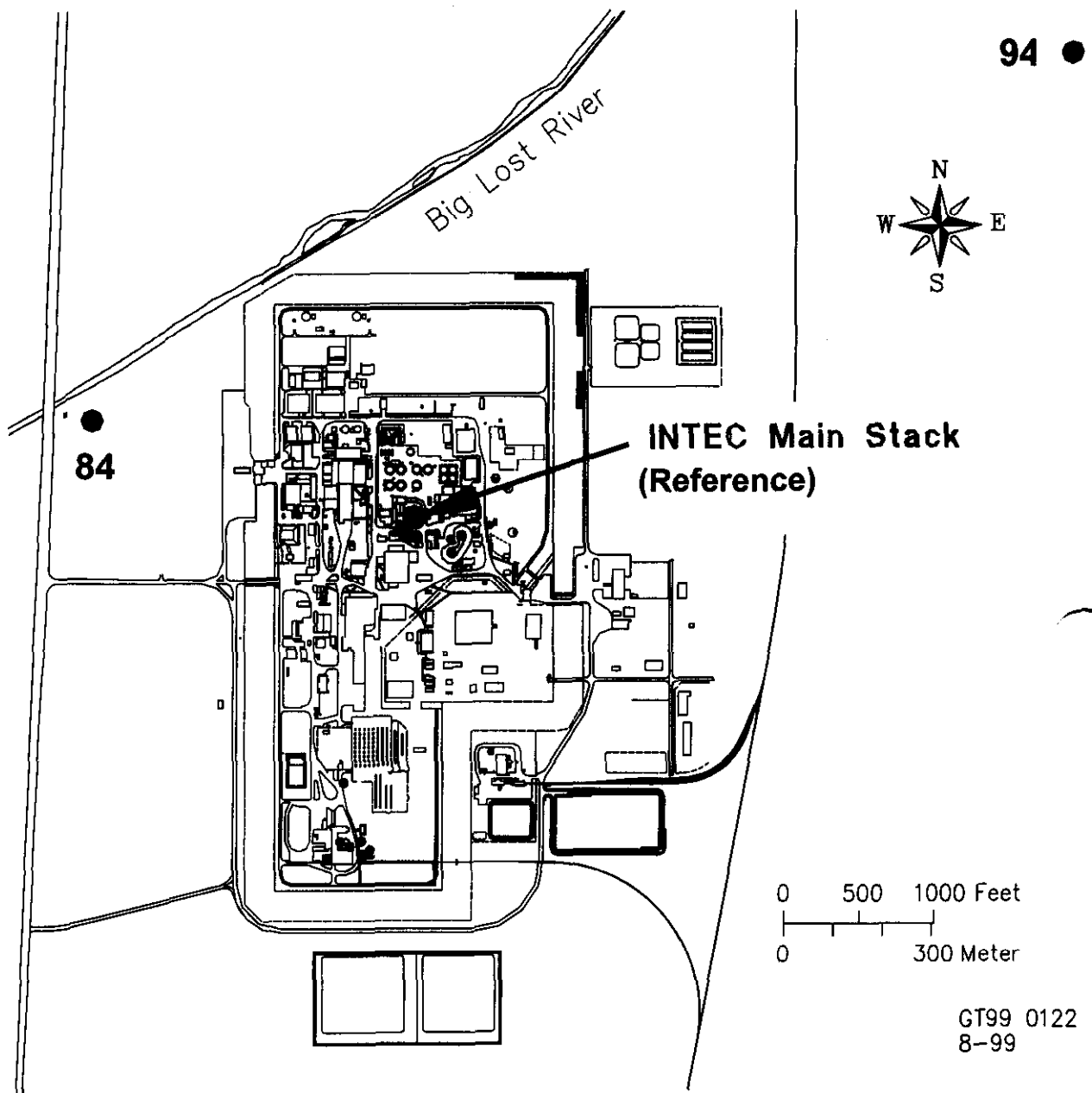


Figure 1-8. Group 6: Buried Gas Cylinders numbered release sites.

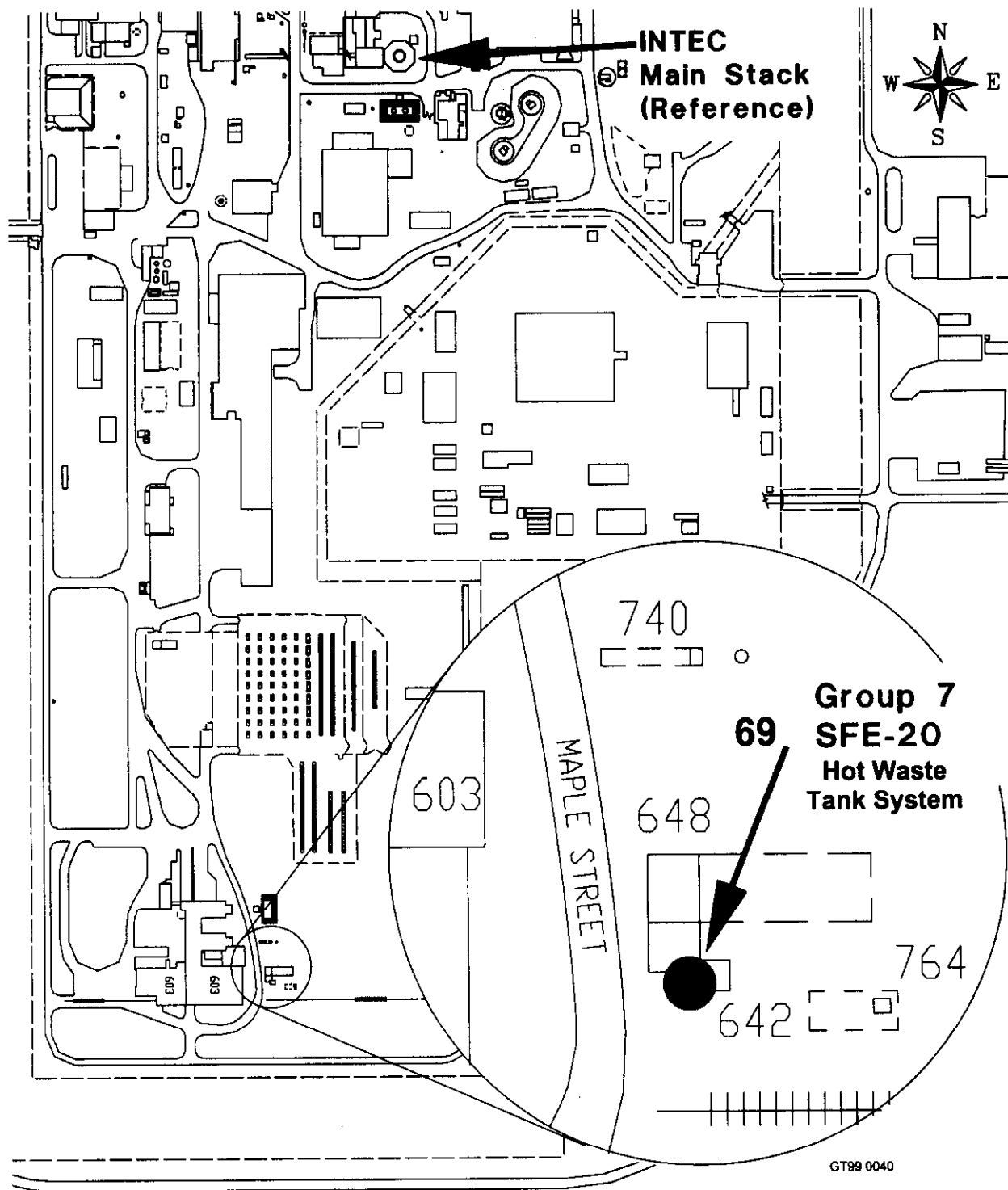


Figure 1-9. Group 7: SFE-20 Hot Waste Tank System numbered release sites.

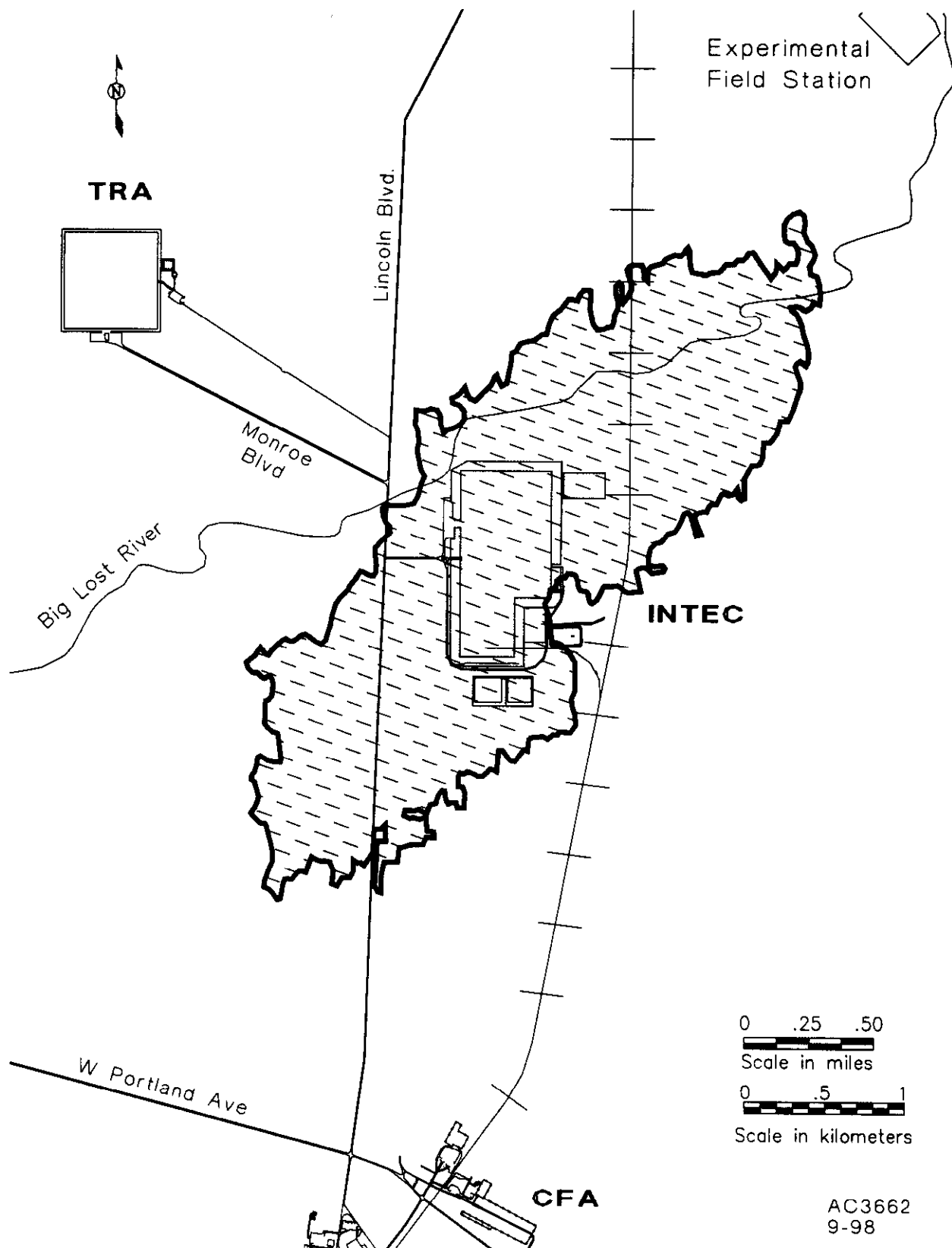


Figure 1-10. OU 3-13 area of contamination (CPP-95).

2. SITE HISTORY AND ENFORCEMENT ACTIVITIES

In 1989, the U.S. Environmental Protection Agency (EPA) proposed listing the INEEL on the National Priorities List (NPL) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The EPA issued a final ruling that listed the INEEL as a NPL site in November 1989 (54 Federal Register [FR] 29820). As a result, the INEEL became subject to the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Federal Facility Agreement and Consent Order (FFA/CO) and associated action plan (U.S. Department of Energy Idaho Operations Office [DOE-ID] 1991) were developed to establish the procedural framework and schedule for developing, prioritizing, implementing, and monitoring response actions at the INEEL in accordance with CERCLA, the Resource Conservation and Recovery Act (RCRA), and the Idaho Hazardous Waste Management Action (HWMA). Under the FFA/CO, the INEEL was divided into 10 WAGs with the INTEC being listed as WAG 3

2.1 INTEC History

The INTEC began operating in 1952. The primary missions were reprocessing uranium for defense purposes, and research and storage of spent nuclear fuel (SNF). Irradiated defense nuclear fuels were reprocessed to recover unused uranium. In 1992, the reprocessing mission was phased out. The current INTEC mission is receiving and temporarily storing SNF and radioactive wastes for future disposition.

In addition to reprocessing spent nuclear fuel, INTEC stabilized high-level liquid waste (HLLW) from fuel reprocessing through a process known as calcination. That processing was conducted in a facility known as the Waste Calcining Facility (WCF) where radioactive HLLW was converted into a granular solid similar in consistency to sand. The liquid waste was drawn from underground storage tanks at the Tank Farm and sprayed into a vessel superheated by a mixture of kerosene and oxygen. Most of the liquid evaporates, while radioactive fission products adhere to the granular bed material in the vessel. The off-gases were treated and monitored before they were released to the environment. The calcined solids were transferred to large stainless steel structures encased in thick concrete vaults (bin sets). Calcining achieves an eight-to-one volume reduction from liquid to solid. Although processing of nuclear fuel was terminated in 1992, calcination of the HLLW continued until it was completed in February 1998. Sodium-bearing wastes are still being processed. The WCF was replaced in 1982, by another similar unit, the New Waste Calcining Facility (NWCF).

Releases of radioactive and hazardous materials to the environment have occurred over the past decades due to accidents and intentional operational releases, such as discharge of radionuclide-contaminated wastewater beneath the INTEC via the former injection well. Although these operational releases fail to meet contemporary standards, past intentional discharges did meet rules and standards of the times.

2.2 FFA/CO Implementation at INTEC

The action plan, presented in the FFA/CO, identified 83 release sites within WAG 3. Eighteen additional sites, including an area of windblown contamination, have subsequently been identified. These sites were combined into 13 OUs based on similar waste streams and projected remedial actions. A "No Action" determination was made for 10 sites based on summary assessments completed under the RCRA-based Consent Order and Compliance Agreement (COCA) before the FFA/CO was completed.

Following procedures identified in the action plan, preliminary scoping Track 1 and/or Track 2 investigations were completed for all sites except the 10 "No Action" sites and 4 new sites, CPP-96, -97, -98, and -99, recently added to the FFA/CO. A Track 1 investigation is a site evaluation using existing data to qualitatively determine if an actual or potential threat to human health or the environment exists. Track 1 investigations include very limited or no field characterization. A Track 2 investigation is a more detailed evaluation in which existing data and additional field characterization data are used to determine release site risks. Track 1 and Track 2 investigation identify if sufficient information exists to determine whether an unacceptable risk exists, and recommend steps to either: (a) conduct "No Action" or "No Further Action," (b) conduct an interim action or removal action, or (c) conduct additional investigation under the RI/FS process.

Site CPP-95, the Windblown Area for INTEC, was evaluated in the OU 10-06 RI/FS, which became an engineering evaluation/cost analysis (EE/CA) for a removal action (Lockheed Idaho Technologies Company [LITCO] 1995a)

Four new sites were recently added to OU 3-13. Site CPP-96, is considered part of the Group 1 Tank Farm soils and will be addressed by both the Tank Farm Interim Action under OU 3-13 and the Final Action selected under OU 3-14. Sites CPP-97, CPP-98, and CPP-99 will be remediated under the selected remedy for OU 3-13 Group 3. The Agencies have determined that six other sites, CPP-38, CPP-61, CPP-65, CPP-66, CPP-81, and CPP-82 are more appropriately dispositioned under other OUs or regulatory programs other than CERCLA. Site CPP-38 will be administered and remediated, if necessary, under the INEEL Asbestos Abatement Program. Site CPP-65 will be handled under the Idaho Wastewater Land Application Rules. Site CPP-66 may pose an ecological risk and was transferred to OU 10-04 for further evaluation and remedy selection, if necessary.

In 1997, a remedial investigation/baseline risk assessment (RI/BRA) (DOE-ID 1997b) was conducted to determine the comprehensive risks posed by past releases at WAG 3. That document addressed all known release sites including those previously subject to Track 1 or Track 2 investigations. The final RI/BRA was issued in November 1997. Concurrently, an FS (DOE-ID 1997a) was written to determine and evaluate feasible remedial alternatives. During preparation of the FS, the need for additional information was identified. Because of the cost of the remedies recommended at the INTEC, review by the National Remedy Review Board was required. The Board recommended modifications to the Feasibility Study concerning the Snake River Plain Aquifer alternatives and the cost estimates. To support the board's recommendations, an FS supplement was written and published in 1998 (DOE-ID 1998a).

Four CERCLA removal actions have been completed to date at WAG 3. The contents of a buried acid pipeline were removed during the summer of 1993 at Site CPP-81. The pipe was cleaned but was left in place. A second removal action was performed in the summer of 1993 on Calcine Bin Set 3 to prevent precipitation runoff from migrating through soil that was previously contaminated by a calcine spill. The contaminated soil was removed and disposed. A third removal action, completed in the fall of 1993, consisted of removing sludge from the Horizontal Filter Basin (CPP-740) and a dry well (CPP-301). The OU 3-13 RI/BRA (DOE-ID 1997b) was performed after these three removal actions, and therefore, the source removal was accounted for in the BRA. The fourth removal action, completed in the fall of 1998, consisted of consolidating four Cs-137 contaminated soil stockpiles from INTEC into the Test Reactor Area (TRA) Warm Waste Pond (WWP) 1957 Cell. The stockpiles identified as Acid Recycle, New Control Room, Electrical Utility System Upgrade, and Irradiated Fuel Storage Facility, all contained low activity radionuclide-contaminated soil.

Four polychlorinated biphenyl (PCB) sites had undergone removal actions prior to the signing of the FFA/CO. These sites CPP-49, -50, -51, and -61 comprised OU 3-01. The sites were evaluated in a

Track 1 (Westinghouse Idaho Nuclear Company, Inc. [WINCO] 1992a) and were all determined to require "No Further Action" on the basis of available clean up and sampling information. In this ROD, the Agencies have determined that additional information is needed to make a final decision for site CPP-61 and have transferred it to OU 3-14 for further evaluation.

2.3 Other Regulatory Programs at INTEC

In 1992, the State of Idaho and DOE-ID entered into a Consent Order to resolve alleged violations contained in a Notice of Noncompliance issued in 1990 by the EPA. The Consent Order was modified in 1994 and again in 1998. The second modification,^a which supercedes the first modification, stipulated that by June 30, 2003, the DOE must cease use of high-level waste Tanks WM-182 through WM-186; ceasing use means emptying the tanks to the heels. However, Tank WM-185 could be used as emergency storage until tank closure or until sufficient volume in other tanks became available. In addition, the second Consent Order modification stipulated that on or before December 31, 2012, the DOE must permanently cease use of the six other tanks known as WM-180, WM-181, WM-187, WM-188, WM-189, and WM-190 and their associated vaults. A closure plan must be submitted by December 31, 2000 for the first tank.

In 1995, the State of Idaho and DOE signed a settlement agreement that would guide waste storage and treatment at INTEC. The agreement is commonly known as the Batt Agreement. Among many other requirements, the Batt Agreement stipulated the following:

- The DOE shall complete the process of calcining all remaining nonsodium-bearing HLLW currently located at INEEL by June 30, 1998.
- The DOE shall treat all high level waste (HLW) currently at the INEEL so that it is ready for disposal outside of Idaho by a target date of 2035.
- The DOE shall commence negotiating a plan and schedule with the State of Idaho for calcined waste treatment (into a form suitable for transport to a permanent repository or interim storage) by December 31, 1999.
- The DOE shall commence calcination of sodium-bearing waste by June 1, 2001.
- The DOE shall complete calcination of sodium-bearing waste by December 31, 2012.
- The DOE shall submit to the State of Idaho an application for a RCRA Part-B permit by December 1, 2012 for the treatment of calcined waste at INEEL into a form suitable for transport to a permanent repository or interim storage.
- The DOE shall operate the HLLW evaporator as to reduce Tank Farm volumes by no less than 1,249,000 L (330,000 gal) by December 31, 1997. After December 31, 1997, efforts will continue to reduce the remaining volume of the Tank Farm liquid waste by operation of the HLLW evaporator.

a. Letter from the State of Idaho's Brian R. Monson to Don Rasch, DOE-ID, on June 12, 1998. Attached was the "Second Modification to Consent Order," Idaho Code 39-4413. (No subject line or number were provided on the letter.)

- The DOE agrees to treat spent fuel, HLW, and transuranic (TRU) wastes in Idaho requiring treatment so as to permit ultimate disposal outside the State of Idaho.

Several RCRA-regulated units operate at the INTEC. Currently, the INTEC Process Equipment Waste (PEW) Evaporators, Tank Farm, NWCF, and Calcine Storage Facility operate under RCRA interim status. A RCRA Part-B permit application will be submitted to the Idaho Division of Environmental Quality (DEQ) at a future date. The Percolation Ponds 1 and 2 were initially under the RCRA interim status permit but were RCRA-closed in 1995. The ponds are currently operated under a wastewater land application permit issued by the State of Idaho. The DEQ has agreed that these ponds have met clean closure requirements. The radionuclide contaminants in the pond sediments and potential subsurface contamination were evaluated in the RI/BRA as Site CPP-67 in OU 3-13.^a

The NWCF is a facility that converts radioactive liquid waste solutions into a granular solid calcine material. Liquid wastes are evaporated in a fluidized bed allowing the dissolved metals and fission products to be converted to salts and oxides which are subsequently stored in the calcine bin-sets. The NWCF operates under a Permit to Construct issued by the State of Idaho and Federal National Emission Standards for Hazardous Air Pollutants (NESHAPs) administered by EPA and the state of Idaho. Although the EPA has proposed to revise air emission and operational requirements for hazardous waste incinerators (EPA 1997), those regulations have not yet been promulgated.

By June 1, 2000, the DOE must also decide if the NWCF will be closed or continue to be operated. If the DOE chooses to close the NWCF, a closure plan must be submitted by June 1 + 180 days. If DOE chooses to continue NWCF operations, DOE must submit a schedule for submission of a permit application by July 1, 2000.

The PEW evaporator system separates liquid radioactive waste into two fractions; one fraction is currently directed to the HLLW Tank Farm and the other fraction is directed to the Liquid Effluent Treatment and Disposal Facility. The PEW evaporator is included in the RCRA interim status document (DOE-ID 1997c), which includes a closure and post-closure plan that defines the closure and post-closure requirements and performance standards.

The WCF was taken out of service in 1981 after 18 years of operation. The WCF contains six units that are included in the INEEL RCRA Part-A permit application and are subject to the closure requirements for interim status treatment, storage, and disposal facilities (TSDFs). These units include four storage vessels, the WCF evaporator, and the high-efficiency particulate air (HEPA) filter storage area. Surface and subsurface releases of radionuclide-contaminated solutions from the WCF are addressed in the comprehensive OU 3-13 FS (DOE-ID 1997a), the Proposed Plan (DOE-ID 1998b), and this ROD. The WCF is not included in the FFA/CO and therefore, the disposition of the six RCRA units and ancillary equipment will be performed in accordance with the WCF RCRA closure plan, which calls for closure of the WCF as a landfill with a RCRA-compliant cap. The WCF RCRA closure plan was approved in August 1997. The closure consists of flushing the lines, isolating the structure, and grouting the six RCRA units in place, followed by collapsing the aboveground structures into the WCF lower levels and filling voids with concrete to act as a structural support for the cap. A concrete cap extending approximately 1.5 m (5 ft) beyond the WCF perimeter has been constructed. Final closure construction is expected to be completed by September 1999.

b. Letter from the State of Idaho's Orville D. Green to Don W. Rasch, DOE-ID, on February 13, 1995. Attached to the letter was the "State of Idaho Permit to Construct an Air Pollution Emitting Source," Permit Number 023-00001. (INEL-ICPP Permit to Construct Amendment Request.)

On October 15, 1995, the State of Idaho, DOE, and U.S. Navy agreed that the INTEC HLLW evaporator would continue to operate and would reduce the total liquid waste volume by at least 1,249,000 L (330,000 gal) by December 31, 1997. It was also agreed that the DOE would finish calcining all nonsodium- and sodium-bearing wastes by June 30, 1998 and December 31, 2012, respectively. All nonsodium-bearing waste has been processed.

The environmental impacts of disposition of the HLLW and calcined solids stored at INTEC will be addressed in the Idaho High Level Waste and Facilities Disposition Environmental Impact Statement (Idaho HLW & Facilities Disposition [FD] Environmental Impact Statement [EIS]). In accordance with the requirements of the National Environmental Policy Act (NEPA), the Idaho HLW & FD EIS is being prepared to evaluate potential alternatives to disposition the HLW stored in the Tank Farm and elsewhere at INTEC. Potential alternatives to disposition of facilities associated with HLW will also be included in the Idaho HLW & FD EIS.

3. HIGHLIGHTS OF COMMUNITY PARTICIPATION

In accordance with CERCLA §113(k)(2)(B)(i-v) and §117, a series of opportunities for public information and participation in the RI/FS and decision process for WAG 3 was provided from October 1994 through February 1999. The opportunities to obtain information and provide input included a "kick-off" fact sheet, which briefly discussed the status of the RI/FS, numerous *INEEL Reporter* newsletter articles (a publication of the INEEL's Environmental Restoration Program), four Citizens' Guide supplemental updates, five "update" fact sheets, a Proposed Plan, briefings and presentations to interested groups, and public meetings.

In October 1994, a "kick-off" fact sheet concerning the WAG 3 RI/FS was sent to about 6,200 individuals of the general public and to 340 INEEL employees on the Community Relations Plan mailing list. Included in the fact sheet was a postage-paid return mailer comment form. Comments were received from four members of the public. The comments were evaluated and considered in the preparation of the project work plan. This fact sheet also offered technical briefings to those interested in the WAG 3 comprehensive investigation. It was the initial opportunity for the public to be involved in determining how the investigation would be conducted. No one requested a briefing at the time, but briefings were held later in the investigation process.

The INTEC WAG 3 investigation was discussed during September and October 1997 media briefings with reporters from Idaho Falls, Pocatello, Twin Falls, and Boise. During these briefings, representatives from the DOE and the INEEL discussed the project and answered questions. Newspaper articles were generated as a result of these briefings and a story was distributed by the *Associated Press*. The investigation was also highlighted in two issues of a national environmental restoration newsletter and on an Idaho Falls radio talk show.

Additionally, two "update fact sheets" were distributed to approximately 700 citizens on the INEEL Community Relations Plan mailing list. The first update fact sheet was distributed in November 1997 and the second in September 1998. The purpose of these documents was to keep citizens appraised of developments during the RI/FS, to include a schedule of the investigation, and to announce the approximate dates when public meetings would take place. These fact sheets also offered technical briefings to those interested in the WAG 3 investigation.

Regular reports concerning the status of the project were included in bimonthly issues of the *INEEL Reporter* and mailed to those on the mailing list. Reports also appeared in four issues of a *Citizens' Guide to Environmental Restoration at the INEEL* (a supplement to the *INEEL Reporter*) in early 1995, 1996, 1997, and 1998.

The DOE-ID gave several briefings on the WAG 3 investigation to the Citizens' Advisory Board—INEEL. The advisory board is a group of 15 individuals, representing the citizens of Idaho, who make recommendations to DOE, EPA, and the State of Idaho regarding environmental restoration activities at the INEEL. On November 18, 1998, the board met to finalize and submit their formal recommendations on the Proposed Plan to DOE.

Briefings were also held in 1998 with members of two environmental organizations, the Shoshone-Bannock (ShoBan) tribes, an economic development group, INEEL employees, several Idaho radio stations and newspapers, national publications, and four Idaho television stations.

Personal calls were made to stakeholders in the Pocatello and Moscow areas the week of November 1, 1998 to inform them of the upcoming public meetings and to see if a briefing was desired.

As a result, public meetings were held with the Shoshone-Bannock tribes the morning of November 16, 1998. Meetings were also held with stakeholder groups in Idaho Falls on the afternoon of November 16, Twin Falls on November 17, Boise on November 18, and Moscow on November 19. A meeting was held with University of Idaho students in Moscow on November 19, 1998.

During the week of October 18, 1998, DOE-ID issued a news release to more than 100 media contacts concerning the beginning of a 30-day public comment period pertaining to the WAG 3 Proposed Plan. Although the period began on October 23, 1998, it was automatically extended by the Agencies for an additional 30 days in anticipation of a large amount of public interest. The initial comment period ended on December 22, 1998, but at the request of United States Congresswoman Chenoweth (Idaho District #1), the comment period was extended until February 12, 1999. As a result of several news releases, a short note was placed in community calendar sections of newspapers and in public service announcements on radio stations. This note gave notice to the public that supportive WAG 3 investigation documents were available in the Administrative Record of the INEEL Information Repositories located in the DOE Public Reading Room at the INEEL Technical Library in Idaho Falls, the Albertson Library on the campus of Boise State University, and the University of Idaho Library in Moscow.

Display advertisements announcing the availability of the Proposed Plan, the locations of public meetings, and the comment period extension, appeared in six regional newspapers during the week of October 18, 1998 located in Idaho Falls, Boise, Moscow, Fort Hall, Pocatello, and Twin Falls. Large display advertisements appeared in the following newspapers: *Post Register* (Idaho Falls), *Sho-Ban News* (Fort Hall), *Idaho State Journal* (Pocatello), *Times News* (Twin Falls), *Idaho Statesman* (Boise), and *Daily News* (Moscow). A follow-up advertisement ran in newspapers approximately 2 days before the public meetings in Idaho Falls, Twin Falls, Boise, and Moscow. Additionally, a post card was mailed to about 6,200 citizens on the INEEL mailing list informing them of the availability of the Proposed Plan, comment period, and upcoming public meetings. A note was also sent to all INEEL employees informing them of the same.

Copies of the Proposed Plan were mailed to about 700 members of the public on the INEEL Community Relations Plan mailing list the week of October 18, 1998, urging citizens to comment on the plan and to attend public meetings. Public meetings were held in Idaho Falls on November 16, Twin Falls on November 17, Boise on November 18, and Moscow on November 19, 1998. Prior to public meetings in each location, an availability session took place from 4 to 7 p.m. The public meetings began at 7 p.m.

For the general public, participation in the decision-making process included receiving and reviewing the Proposed Plan, attending the availability sessions before the public meetings to informally discuss the issues, with the Agencies remedial project managers and INEEL environmental restoration technical personnel, and submitting verbal and written comments to the Agencies during the public comment period.

Written comment forms (including a postage-paid business-reply form) were available to those attending the public meetings. The forms were used to submit written comments either at the meeting or by mail. The reverse side of the meeting agenda contained a form for the public to use in evaluating the effectiveness of the meetings. A court reporter was present at each meeting to record transcripts of discussions and public comments. The meeting transcripts were placed in the Administrative Record for WAG 3 OU 3-13 in three INEEL Information Repositories. For those who could not attend the public meetings, but wanted to make formal written comments, a postage-paid written comment form was attached to the Proposed Plan.

A total of 55 people not associated with the project attended the public meetings. All comments received on the Proposed Plan were considered during the development of this ROD. The decisions for the actions selected in this ROD are based on the information in the Administrative Record for this OU.

The Idaho HLW and FD EIS held scoping workshops in Idaho Falls on October 16, 1997 and in Boise on October 23, 1997. The public revised issues of coordination WAG 3 during these workshops. The scoping activity report (DOE-ID 1998c) provides references to these concerns.

A Responsiveness Summary has been prepared as part of this ROD and is presented in Appendix A. All formal verbal comments presented at the public meetings and all written comments received are also included in Appendix A and in the Administrative Record for the ROD. Those comments are annotated to cross reference the comment to the appropriate response in the Responsiveness Summary.

An index of the Administrative Record for OU 3-13 is included as part of this ROD in Appendix B. This index shows all of the documents that are contained in the Administrative Record for OU 3-13. As the ROD for OU 3-13 is making the decision for the disposition of the sites contained in OU 3-00 (FFA/CO "No Action" Sites) through OU 3-13, the index and Administrative Record includes these other OUs. The decisions made in this ROD are based on the information contained in the Administrative Record.

4. SCOPE AND ROLE OF OPERABLE UNITS AND RESPONSE ACTIONS

This comprehensive ROD addresses the known contaminant releases at WAG 3 resulting from SNF reprocessing, storage and research, and ancillary activities except for those releases associated with the Tank Farm. Closure of RCRA-regulated units and impacts associated with the closed RCRA units also is not included in this ROD. However, post-closure monitoring of closed units, such as the WCF, and past releases of hazardous substances from RCRA-regulated units are addressed. Similarly, closure or decontamination and dismantlement (D&D) of HLW units is not included, but past releases of hazardous substances from these units are addressed.

The INTEC is one of 10 WAGs at the INEEL. Each WAG contains a number of contaminant release sites grouped into OUs based on similarity of waste streams and projected remedial actions. Fourteen OUs have been defined for WAG 3.^c OU 3-01 through OU 3-13 are addressed in this ROD. OU 3-14 will address the final action for the Tank Farm Soils and SRPA inside the current INTEC security fence. The OU 3-13 RI/BRA determined that 51 release sites, including the perched water and the SRPA pose risks or threats to human health or the environment greater than allowable levels. Four new sites, recently added to OU 3-13, were not evaluated in the RI/BRA but are presumed to pose a risk or threat because of their origin and similar contaminants. During the OU 3-13 FS evaluation, the release sites and OUs were further categorized into seven groups relating to media, similar contamination, or geographic proximity. These groups are discussed and defined in the following sections. Table 4-1 lists each WAG 3 site, site description, and site grouping. The DOE, EPA and the IDHW have selected "No Action," "No Further Action," or a remedial alternative for each of the release site groups and the individual sites listed in the table, based on the comparative analyses of alternatives presented in the WAG 3 comprehensive RI/FS and other documents contained in the Administrative Record. In addition, four new sites recently added to OU 3-13 and their planned disposition are discussed in Section 4.9 and in Table 4-1. Section 4.10 describes six other sites that will be dispositioned under another WAG or other regulatory programs, but will be reviewed by the CERLCA program during the 5-year review process.

4.1 Tank Farm Soils (Group 1)

The Tank Farm Soils (Figure 1-3) previously consisted of sites in OUs 3-06, 3-07, 3-08, 3-11, and 3-13. The sites are located in the area of the Tank Farm (Sites CPP-16, -20, -24, -25, -26, -28, -30, -31, -32, and -79) and adjacent to the PEW evaporator building (Sites CPP-15, -27, -33, and -58) are consolidated into Site-96. These sites consist of soil contamination that resulted from spills and pipeline leaks of radioactive liquids from plant liquid transfer operations. Distributed throughout the Tank Farm soils outside of the previously identified release sites are low concentrations of contaminants at varying locations and depths. New Site CPP-96 is a consolidation of all of the previously identified Tank Farm Soils sites and the intervening interstitial soils within the Site CPP-96 boundary. Contamination resulting from releases from waste transfer lines and valve boxes in the Tank Farm area currently account for approximately 95% of the known contaminant inventory, in total curies of radioactive material,

c. In addition, 10 "No Action Sites" were identified in the FFA/CO but were not given an operable unit number. See Section 4.8 for additional discussion.

Table 4-1. WAG 3 CPP release sites and site grouping.

Site	Operable Unit	Description	Site Group	OU 3-13 ROD Decision
CPP-01	OU 3-09	Concrete settling basins and dry wells east of CPP-603	3	RD/RA
CPP-02	OU 3-09	French drain west of CPP-603	2	RD/RA
CPP-03	OU 3-09	Temporary storage area southeast of CPP-603	3	RD/RA
CPP-04	OU 3-09	Contaminated soil area around CPP-603 settling tank	3	RD/RA
CPP-05	OU 3-09	Contaminated soil around CPP-603 settling basin	3	RD/RA
CPP-06	OU 3-09	Trench east of CPP-603 fuel storage basin	none	"No Further Action"
CPP-07	OU 3-02	Soil contamination northwest of CPP-642	none	"No Action"
CPP-08	OU 3-09	CPP-603 basin filter system line failure	3	RD/RA
CPP-09	OU 3-09	Soil contamination at northeast corner of CPP-603 south basin	3	RD/RA
CPP-10	OU 3-09	CPP-603 plastic pipeline break	3	RD/RA
CPP-11	OU 3-09	CPP-603 sludge and water release	3	RD/RA
CPP-12	OU 3-02	Contaminated paint chips and pad south of CPP-603	none	"No Action"
CPP-13	OU 3-08	Pressurization of solid storage cyclone northeast of CPP-633	3	RD/RA
CPP-14	OU 3-05	Old Sewage Treatment Plant west of CPP-664	3	RD/RA
CPP-15	OU 3-08	Solvent burner east of CPP-605	1	RD/RA
CPP-16	OU 3-07	Contaminated soil from leak in line from CPP WM-181 to PEW Evaporator	1	RD/RA-OU 3-14 ^a
CPP-17	OU 3-09	Soil storage area south of CPP Peach Bottom fuel storage area	none	"No Further Action"
CPP-18	OU 3-02	Gas storage building, current location of CPP-668	none	"No Action"
CPP-19	OU 3-09	CPP-603 to CPP-604 line leak	3	RD/RA
CPP-20	OU 3-07	CPP-604 radioactive waste unloading area	1	RD/RA
CPP-21	OU 3-02	Solid waste storage bin south of CPP-601	none	"No Action"
CPP-22	OU 3-09	Particulate air release south of CPP-603	none	"No Further Action"
CPP-23	OU 3-02	CPP injection well (MAH-FE-PL-304)	5	RD/RA ^b
CPP-24	OU 3-07	CPP Tank Farm area bucket spill	1	RD/RA-OU 3-14 ^a

Table 4-1. (continued).

Site	Operable Unit	Description	Site Group	OU 3-13 ROD Decision
CPP-25	OU 3-07	Contaminated soil in the Tank Farm area north of CPP-604	1	RD/RA
CPP-26	OU 3-07	Contaminated soil in the Tank Farm area from steam flushing	1	RD/RA
CPP-27	OU 3-08	Contaminated soil in the Tank Farm area east of CPP-604	1	RD/RA
CPP-28	OU 3-07	Contaminated soil in the Tank Farm area south of WM-181 by Valve Box A-6	1	RD/RA
CPP-29	OU 3-08	Contaminated soil north and west of the main stack (CPP-708)	none	"No Action"
CPP-30	OU 3-07	Contaminated soil in the Tank Farm area near Valve Box B-9	1	RD/RA-OU 3-14 ^a
CPP-31	OU 3-07	Contaminated soil in the Tank Farm area south of Tank WM-183	1	RD/RA
CPP-32	OU 3-07	Contaminated soil in the Tank Farm area southwest and northwest of Valve Box B-4	1	RD/RA
CPP-33	OU 3-06	Contaminated soil in the Tank Farm area near WL-102, northeast of CPP-604	1	RD/RA
CPP-34	OU 3-06	Soil storage area (disposed trenches) in the northeast corner of the ICPP	3	RD/RA
CPP-35	OU 3-08	CPP-633 decontamination spill	3	RD/RA
CPP-36	OU 3-08	Transfer line leak from CPP-633 to WL-102	3	RD/RA
CPP-37a	OU 3-02	Gravel pit—outside INTEC fence	3	RD/RA
CPP-37b	OU 3-02	Gravel pit and debris landfill Inside INTEC fence	3	RD/RA
CPP-38	OU 3-04	Friable transite on CPP-601 through -606, -640, -644, and -648 ^c	Closure under another program	
CPP-39	OU 3-13	CPP HF storage tank (YDB-105) and dry well. OU 3-13 no Track 1 or Track 2.	none	"No Action"
CPP-40	OU 3-06	Lime pit at the base of the CPP-601 berm and french drain	none	"No Action"
CPP-41a	OU 3-02	Fire training pits between CPP-666 and CPP-663, under asphalt	2	RD/RA
CPP-41b	OU 3-02	Fire training pits between CPP-666 and CPP-663	none	"No Action"
CPP-42	OU 3-10	Drainage ditch west of CPP-637	none	"No Action"

Table 4-1. (continued).

Site	Operable Unit	Description	Site Group	OU 3-13 ROD Decision
CPP-43	none	Grease pit south of CPP-637	none	"No Action" per FFA/CO
CPP-44	OU 3-10	Grease pit south of CPP-608	3	RD/RA
CPP-45	OU 3-11	CPP-621 chemical storage area spills	none	"No Action"
CPP-46	OU 3-10	CPP-637 courtyard pilot plant release	none	"No Action"
CPP-47	OU 3-06	Pilot plant storage area west of CPP-620	none	"No Action"
CPP-48	OU 3-13	French drain south of CPP-633	3	RD/RA
CPP-49	OU 3-01	PCB transformer yard (CPP-705)	none	"No Action"
CPP-50	OU 3-01	PCB transformer yard (CPP-731)	none	"No Action"
CPP-51	OU 3-01	PCB staging area west of CPP-660	none	"No Action"
CPP-52	none	Pickling shed east of CPP-631	none	"No Action" per FFA/CO
CPP-53	OU 3-02	Paint and paint solvent area south of CPP-697	none	"No Action"
CPP-54	OU 3-02	Drum storage area west of CPP-660	none	"No Action"
CPP-55	OU 3-02	Mercury-contaminated area south of CPP T-15	3	RD/RA
CPP-56	OU 3-10	Nitric acid contamination south of CPP-734	none	"No Action"
CPP-57	OU 3-02	Sulfuric acid spills east of CPP-606	none	"No Action"
CPP-58	OU 3-11	CPP PEW evaporator overhead pipeline spills	1	RD/RA
CPP-59	OU 3-02	Kerosene tank overflow west of CPP-633	none	"No Action"
CPP-60	OU 3-02	Paint shop at present location of CPP-645	2	RD/RA
CPP-61	OU 3-01	PCB spill in CPP-718 transformer yard	none	OU 3-14 RI/FS ^d
CPP-62	OU 3-02	Mercury-contaminated area near CPP TB-4	none	"No Action"
CPP-63	OU 3-02	Hexone spill by CPP-710	none	"No Action"
CPP-64	OU 3-02	Hexone spill west of CPP-660	none	"No Action"
CPP-65	OU 3-02	CPP Sewage Treatment Plant lagoons	Closure under another program	
CPP-66	OU 3-02	CPP coal-fired steam generation facility Fly Ash Pit	WAG 10	RD/RA
CPP-67	OU 3-03	CPP Percolation Ponds #1 and #2	3	RD/RA
CPP-68	OU 3-02	Abandoned gasoline tank CPP VES-UTI-652 (North of Building 606)	2	RD/RA

Table 4-1. (continued).

Site	Operable Unit	Description	Site Group	OU 3-13 ROD Decision
CPP-69	OU 3-09	Abandoned liquid radioactive waste storage Tank CPP VES-SFE-20	7	RD/RA
CPP-70	none	Septic tank east of CPP-655	none	"No Action" per FFA/CO
CPP-71	none	Seepage pits west of CPP-656	none	"No Action" per FFA/CO
CPP-72	none	CPP-758 cesspool east of CPP-651	none	"No Action" per FFA/CO
CPP-73	none	Leaching cesspool east of CPP T-15	none	"No Action" per FFA/CO
CPP-74	none	Seepage pit and septic tank west of CPP-626	none	"No Action" per FFA/CO
CPP-75	none	Septic tank and cesspool west of CPP-603	none	"No Action" per FFA/CO
CPP-76	none	Septic tank and cesspool west of CPP-659	none	"No Action" per FFA/CO
CPP-77	none	Seepage pit and cesspool north of CPP-662	none	"No Action" per FFA/CO
CPP-78	OU 3-09	Contaminated soil west of CPP-693, east of dry fuel storage area	none	"No Action"
CPP-79	OU 3-07	Tank farm release near Valve Box A-2	1	RD/RA
CPP-80	OU 3-12	CPP-601 vent tunnel drain leak	2	RD/RA
CPP-81	OU 3-12	Abandoned CPP-637/CPP-601 VOG line	none	OU 3-14 RI/FS ^d
CPP-82	OU 3-12	Abandoned line (3.8 cm [1.5in.]) PLA-766 west of Beech Street	none	OU 3-14 RI/FS ^d
CPP-83	OU 3-08	The entire perched water system at the INTEC	4	RD/RA
CPP-84	OU 3-13	Gas canisters (buried gas cylinders)	6	RD/RA
CPP-85	OU 3-13	Waste Calcining Facility blower corridor	2	Part of WCF closure
CPP-86	OU 3-13	CPP-602 waste trench sump	2	RD/RA
CPP-87	OU 3-13	CPP-604 VOG blower cell sump and floor drain	2	RD/RA
CPP-88	OU 3-13	Radiologically contaminated soil	none	"No Further Action" - Conduct 5-year review
CPP-89	OU 3-13	CPP-604/-605 tunnel excavation	2	RD/RA
CPP-90	OU 3-13	CPP-709 ruthenium detection	none	"No Further Action" - Conduct 5-year review

Table 4-1. (continued).

Site	Operable Unit	Description	Site Group	OU 3-13 ROD Decision
CPP-91	OU 3-13	CPP-633 blower pit drain	3	RD/RA
CPP-92	OU 3-13	Soil boxes west of CPP-1617	3	RD/RA
CPP-93	OU 3-13	Simulated calcine disposal trench	3	RD/RA
CPP-94	OU 3-13	Gas canisters (buried gas cylinders)	6	RD/RA
CPP-95	OU 3-13	Airborne plume (also shown in 10-06)	None	"No Further Action" - Conduct 5-year review
CPP-96	OU 3-13	Tank Farm interstitial soils	1	RD/RA
CPP-97	OU 3-13	Tank Farm soil stockpile	3	RD/RA
CPP-98	OU 3-13	Tank Farm shoring boxes	3	RD/RA
CPP-99	OU 3-13	Boxed soil	3	RD/RA

- a. No action sites within the Tank Farm are consolidated into Site CPP-96. Because the sites are within the Tank Farm they will be subject to the Group 1 Interim Action and to the OU 3-14 RI/FS.
- b. CPP-23 is a source for OU 3-13 Group 5 aquifer contamination outside the INTCE fence. The source will be remediated under OU 3-14.
- c. CPP-38 is asbestos on roofs and walls of buildings. The site will be closed under the INEEL Asbestos Abatement Program.
- d. Site moved to the OU 3-14 RI/FS because not enough data is available to make a risk-based decision.

at the INTEC. No evidence has been found to indicate that any of the Tank Farm tanks have leaked. However, contaminants found in the interstitial soils are likely the result of accidental releases and leaks from process piping valve boxes or sumps, and cross-contamination from operations and maintenance excavations. Limited site investigations have been conducted at the Tank Farm sites because many of the spill areas are in operational and highly radioactive areas. The principle threats posed by contaminated Tank Farm soils are external exposure to radiation and leaching and transport of contaminants to the perched water or SRPA. SRPA groundwater contaminated by Tank Farm soils releases could be consumed by future groundwater users.

4.2 Soils Under Buildings and Structures (Group 2)

The Soils Under Buildings and Structures are comprised of release sites that occur beneath INTEC buildings or structures, and include Sites CPP-02, -41a, -60, -68, -80, -85, -86, -87, and -89 (Figure 1-4). These sites consist of soil contamination that resulted from past hazardous or radioactive liquid spills, leaks, and plant operations.

- Site CPP-02 is an old french drain that was abandoned and partially excavated in 1966 and is located beneath Building CPP-603.
- Site CPP-41a is an old fire-training pit that was covered by asphalt during construction of building CPP-633.
- Site CPP-60 is the soils that were beneath the former paintshop building. CPP-645 is now over this site.
- Site CPP-68 is the former location of an abandoned, 1,892 L (500 gal) underground gasoline storage tank.
- Site CPP-80 resulted from a hazardous, radioactive liquid condensate leak from the Building CPP-601 vent tunnel drain.
- Site CPP-85 is the WCF Blower Corridor. It has been closed in place as part of the WCF under an approved HWMA closure plan. The WCF will be included with the Group 2 Soils Under Buildings and Structures sites in the CERCLA 5-year reviews.
- Site CPP-86 is a waste trench that runs beneath CPP-602, which collects liquid waste for transfer to the PEW evaporator from various CPP-602 operations.
- Site CPP-87 is located beneath the vapor off-gas blower cell of Building CPP-604.
- Site CPP-89 is a tunnel excavation located beneath Buildings CPP-604 and -605.

Sites CPP-87 and CPP-89 are integrally related; the soil and contamination removed from CPP-87 is the same as that removed at CPP-89. Contaminated soils from the tunnel were partially excavated, boxed, and stored at the plant.

The major threats posed by Group 2 sites are external exposure to contaminants if the building or structure is removed and potential leaching and transport of soil contaminants to the perched water or SRPA. The existing building or structure currently provides an adequate radiation protection barrier and

serves to limit infiltration into the contaminated soils. Group 2 soils are not considered "principal threat" wastes because the levels of radionuclides present have not been directly measured.

4.3 Other Surface Soils (Group 3)

The Other Surface Soils consist of release sites located in the following areas:

- Building CPP-603
(Sites CPP-01, -03, -04, -05, -08, -09, -10, -11, and -19)
- Building CPP-633
(Sites CPP-36 and -91)
- Calcined Solids Storage Bins
(Sites CPP-13, -35, and -93)
- Disposal Trenches
(Site CPP-34)
- Old Sewage Treatment Plant (STP)
(Site CPP-14)
- Grease Pit
(Site CPP-44)
- Near Building CPP-1619
(Site CPP-55)
- Near temporary Building TB-1
- Percolation Ponds that are situated south of the INTEC fence
(Site CPP-67).

In addition, Group 3, also includes Sites CPP-37a, CPP-37b, and CPP-48. Site CPP-37a is a former gravel pit located outside of the current INTEC security fence, that is used to collect storm water runoff from the Tank Farm. Site CPP-37b is a former gravel pit located inside the current INTEC security fence that was previously used for disposal of wastewaters from the old STP and subsequently used for disposal of construction debris. Site CPP-48 is an excess chemical dump tank located south of the old WCF (CPP-633) that was used as a french drain from 1975 to 1981. Figure 1-5 shows the location of the Group 3 sites. These sites generally consist of soil contamination that resulted from inadvertent spills and leaks of radioactive waste, decontamination solutions, spent fuel storage water, storage of radionuclide-contaminated equipment, and other plant-generated wastewaters. Group 3 also includes Site CPP-92, which consists of 648 boxes of radionuclide-contaminated soils that were generated from a variety of INTEC activities. In addition, the new sites similar to Group 3 (CPP-97, -98, and -99) discussed in Section 4.9, consist of soils and other materials will be remediated as Group 3 soils.

The results of the RI/BRA (DOE-ID 1997b) indicate that the major threat posed by the Group 3 sites is external exposure to radionuclides. Additionally, three sites (CPP-35, -36, and -91) pose a risk to the SRPA.

4.4 Perched Water (Group 4)

Perched Water (Site CPP-83) occurs at depths ranging between 30 and 128 m (100 and 420 ft) in the basalts and the sedimentary interbeds beneath INTEC. Figure 1-6 shows the approximate extent of the perched water at INTEC. Perched water consists of variably saturated groundwater zones above the regional SRPA. The perched water zones result from local recharge from precipitation infiltration, the Big Lost River, the INTEC percolation ponds, the sewage treatment ponds, lawn irrigation, and other miscellaneous INTEC water sources. Perched water flow is primarily vertical, although some lateral flow occurs, and ultimately recharges the SRPA. Perched water has been contaminated by leaching and downward transport of contaminants, primarily Sr-90 and tritium from the overlying surface soils, and from two instances in which the INTEC injection well (CPP-23) collapsed and service wastewater was released to the perched zones.

The perched water does not pose a direct human health threat because it is not currently used for consumption and, in the absence of man-made recharge (e.g. from the percolation ponds), the perched water zones are not sufficiently productive to sustain permanent residence. A future water supply well located in the perched water would not be capable of providing sufficient water for domestic purposes. However, perched water does pose a threat as a contaminant transport pathway to the SRPA. Contaminants already in the perched water are a source of future SRPA contamination. Consumption of contaminated water from the SRPA is covered under Group 5. The primary man-made source of perched water recharge is the percolation ponds.

4.5 Snake River Plain Aquifer (Group 5)

The SRPA underlies the ESRP and has been designated by the EPA as a sole source aquifer for the region. The basalts and sedimentary interbeds underlying INTEC, where continually saturated, are part of the SRPA. The aquifer lies at a depth of about 137 m (450 ft) beneath the site. Regional groundwater flow is southwest at average estimated velocities of 1.5 m/day (5 ft/day). The average groundwater flow velocity at the INTEC is estimated at 3 m/day (10 ft/day) due to local hydraulic conditions. Hydraulic characteristics of the aquifer differ considerably from place to place depending on the saturated thickness and the characteristics of the basalts and sedimentary interbeds. The source of contamination in the SRPA originates primarily from the injection well (CPP-23). However, contaminated soils and perched water are predicted to contribute to future SRPA contamination. I-129, Sr-90, and plutonium isotopes were determined to be the only contaminants that pose an unacceptable risk to a hypothetical future resident beyond the year 2095. The primary I-129 source was the former injection well. The primary Sr-90 source(s) were the former injection well and the Tank Farm soils. The plutonium isotopes are primarily sourced from the Tank Farm. Figure 1-7 shows the estimated extent of the I-129 plume, which currently exceeds 1 pCi/L, and contributes to an exceedance of the 4 millirem (mrem)/year beta-gamma emitting radionuclide maximum contaminant level (MCL) in the SRPA. The major human health threat posed by contaminated SRPA groundwater is exposure to radionuclides via ingestion by future groundwater users.

Due to the uncertainty associated with the contaminant source estimates and potential releases from the Tank Farm soils, the remedial measures taken for the SRPA under OU 3-13 are designated as an interim action. The actions selected for the SRPA outside the current INTEC security fence are final actions under this ROD. The evaluation and remedy selection for the SRPA inside the current INTEC security fence will occur under OU 3-14. The OU 3-14 decisions will also remediate, if necessary, residual contamination associated with the former injection well (CPP-23).

4.6 Buried Gas Cylinders (Group 6)

Sites CPP-84 and CPP-94 comprise the Buried Gas Cylinders group. Site CPP-84 is located outside the current INTEC security fence, east of Lincoln Boulevard and south of the Big Lost River (see Figure 1-8). The site consists of a buried trench where compressed gas cylinders were previously disposed. The cylinders at the burial site originated from INTEC and contain gases used for construction. The exact number and contents of the discarded cylinders is not known, but it is believed that 40 to 100 cylinders were disposed at the site. The gases in the cylinders may include acetylene, compressed air, argon, carbon dioxide, helium, nitrogen, or oxygen. These gases do not pose a human health risk but are considered a safety hazard because ruptures of the cylinders could lead to personal injury, fire, or explosion. DOE will evaluate the safety concerns of removing the cylinders versus capping them in place.

Site CPP-94 includes an area about 2.4 km (1.5 mi) northeast of the INTEC along the south side of a dirt security road (see Figure 1-8). Four exposed gas cylinders have been observed at the site and are believed to contain hydrofluoric acid. The safety hazards associated with CPP-94 are similar to those at Site CPP-84. The potential for cylinder over-pressurization and bursting is considered the most serious hazard at CPP-94. The buried gas cylinders pose a safety hazard to inadvertent intruders (i.e., back hoe operators or drillers). Hydrofluoric acid is very corrosive, reacts violently with moisture, and can generate explosive concentrations of hydrogen gas. Fluoride, a chemical residual of hydrofluoric acid reactions, is a potential human health and ecological hazard.

4.7 SFE-20 Hot Waste Tank System (Group 7)

The SFE-20 Hot Waste Tank System is also known as Site CPP-69, which consists of a concrete vault containing an abandoned radioactive liquid waste storage tank. The top of the tank vault is located about 3 m (10 ft) below grade. The tank contains about 1,514 L (400 gal) of liquid and about 208 L (55 gal) of sludge (Figure 1-9). The tank system consists of the tank contents, tank, and associated structures located east of Building CPP-603. The SFE-20 Hot Waste Tank System was constructed in 1957 to collect liquid radioactive wastes from the south basin area of Building CPP-603 and the Fuel Receiving and Storage Facility. In 1976, the SFE-20 Hot Waste Tank System was taken out of service and the inlet pipe was disconnected and capped. Contaminated soil may have been used as backfill material for the excavation. The pump was also removed from the pump pit and the connections capped. A preliminary investigation conducted in 1984 indicated that the tank liquid and sludge contain elevated levels of Cs-137, Cs-134, Co-60, Sr-90, and isotopes of europium, plutonium, and uranium. The concentration of plutonium indicates that the liquid is transuranic waste and that the sludge may be classified as transuranic waste. Previous spills within the tank vault and pump pit contained similar contaminants. No data exists to determine if contamination currently exists under SFE-20, however, when the vault is removed any contaminated soils will be excavated and disposed in the ICDF in a manner consistent with the Group 3 soils remedy.

The major threat posed by the SFE-20 Hot Waste Tank System is a potential release to the underlying soils and subsequent leaching and transport of soil contaminants to the perched water or SRPA.

4.8 "No Action" And "No Further Action" Sites

The Agencies have determined that "No Action" or "No Further Action" be taken under CERCLA at 40 sites. In all cases, the determination applies to the soils only and not to overlying man-made structures. A "No Action" site is a site that has no contaminant source or has a minor contaminant source

with an acceptable risk level under a current residential exposure scenario, i.e., the risk is less than 1×10^{-4} or hazard index (HI) <1 in the year 2000. A "No Further Action" site is a site that has a contaminant source or a potential contaminant source present that meets either of the following criteria:

- The site poses a current unacceptable residential risk, i.e., greater than 1×10^{-4} or HI <1 in the year 2000, but does not pose an unacceptable residential risk in the year 2095, i.e., less than 1×10^{-4} or HI >1 . (Radioactive decay will allow many sites that are currently unacceptable to decay to acceptable risk levels by the year 2095.)
- The site has contamination that exists at depths greater than 10 ft bgs and does not have an exposure route available under current site conditions.
- The site has a minor contaminant source, as qualitatively determined, that exists under a building, structure, or asphalt.

Ten sites were designated as "No Action" sites with the signing of the FFA/CO, because it was determined that no hazardous substances were present or released. An additional 24 sites were determined to be "No Action" during the RI/BRA. Six sites were determined to be "No Further Action" sites through Track 1 or Track 2 investigations and RI/BRA analysis. Table 4-1 lists the 40 "No Action/No Further Action" sites. The technical basis for these decisions is contained in the Administrative Record.

All "No Further Action" sites will be reviewed during the CERCLA 5-year review process to ensure the protectiveness of the remedial actions taken under this ROD. Review of the "No Further Action" sites is necessary because continued operations of the INTEC may adversely impact these sites. Five-year reviews will also ensure that changes in the physical configuration of any INTEC facility or site where there is suspicion of a release of hazardous or radioactive substances (e.g., D&D) will be managed to achieve remediation goals established in this ROD. The 5-year reviews will continue as long as contaminants exist at levels which result in restricted or limited site usage.

Each site for which a "No Action" or "No Further Action" determination has been made is briefly discussed below. Additional details can be found in the Administrative Record.

4.8.1 "No Action/No Further Action" Sites Determined in OU 3-13 ROD

4.8.1.1 CPP-06. CPP-06 consists of a trench near the southern border of the INTEC that was used to dispose of fuel storage basin water from Building CPP-603. The water discharged was reported to contain radionuclides at or near background concentrations. One soil sample was collected from the trench. A risk assessment performed using those data indicated acceptable risks in the year 2095 but unacceptable risks in the year 2000. Therefore, the Agencies have determined that Site CPP-06 is a "No Further Action" site (LMITCO 1995b).

4.8.1.2 CPP-07. Site CPP-07 is an area of approximately 35 m² (375 ft²) that was contaminated by steam condensates resulting from a jet-pump transfer of liquid low-level radioactive waste from Tank SFE-20 to WL-102. The contamination incident was a one-time occurrence. The surface contamination was measured at 200 mrem/hr β - γ . The contaminated surface soils were promptly removed and replaced with clean soil; no source remains at this site. The Agencies have determined that CPP-07 is a "No Action" site because the source was removed (WINCO 1992b).

4.8.1.3 CPP-12. Site CPP-12 was an area located south of Building CPP-603 where contaminated paint chips were found outside of a nearby radiation and contamination control area that was previously used for contaminated equipment storage. The paint chips originated from paint that was applied to a

storage pad; weathering caused the paint to fall off and was wind dispersed outside of the control area. The contaminated paint chips and storage pad were both removed. Subsequent surveys indicate that no contaminated surface soils exist at this site. The Agencies have determined that Site CPP-12 is a "No Action" site because the minor source was completely removed (WINCO 1992c).

4.8.1.4 CPP-17. CPP-17 consists of two areas near Building CPP-603. The site was used for storing piles of soil, asphalt, concrete, metal debris, and other items that reportedly came from a variety of construction and maintenance activities within the INTEC. In addition, sludge and liquid generated during CPP-603 fuel storage basin maintenance activities may have been deposited in these areas resulting in contamination of the underlying soils. The soil in CPP-17 was containerized in approximately 653 standard radioactive waste boxes. Three soil borings were sampled to characterize CPP-17. The results of the investigation and risk assessment, which are reported in Chapter 14 of the BRA, indicated that the risks to current onsite workers and hypothetical future residents is acceptable but the current residential risks are unacceptable. Therefore, the Agencies have determined that Site CPP-17 is a "No Further Action" (LITCO 1995b).

4.8.1.5 CPP-18. Site CPP-18 is an area that was used to store spent gas cylinders. Building CPP-668 is presently located on this site. In addition, excavation for, and construction of Building CPP-668 would have disturbed any minor contamination that may have existed at the site (WINCO 1992d). The Agencies have determined that Site CPP-18 is a "No Action" site because there is no documentation or other evidence of a release.

4.8.1.6 CPP-21. Site CPP-21 is an area south of CPP-601 that was used to store solid waste including paper, rags, and contaminated metal. The waste was contained in three dumpsters. A radiological survey of the area revealed no evidence of contamination. The Agencies have determined that Site CPP-21 is a "No Action" site because there is no evidence of a source or a release at this site (WINCO 1993b).

4.8.1.7 CPP-22. Site CPP-22 is the location of surface contamination associated with a 1958 air release that resulted from the failure of a HEPA filter. The HEPA filter was associated with the Fuel Element Cutting Facility. Contamination from this airborne release has most likely been removed or covered over with soil during the period from 1958 to the present as a result of construction activities that have disturbed the area. The area was extensively surveyed and three boreholes were drilled within Site CPP-22 at the locations surveyed to have the highest radiation levels above background. During the investigation, the peak concentration for Cs-137 was 14 pCi/g. The Agencies have determined that Site CPP-22 is a "No Further Action" site because the future risks are acceptable but the current residential risks are not acceptable (LITCO 1995b).

4.8.1.8 CPP-29. Site CPP-29 is the result of a release of small quantities of radioactive liquid at the base of the original ICPP stack in 1974. The original contaminated area was estimated to be 0.7 m² (8 ft²) and no more than a few inches thick. Since the release, the Main Stack Refurbishment Project completely excavated this site to a depth of 2.1 m (7 ft) (bls) and extended the concrete base of the new stack over the area of the release. The Agencies have determined that Site CPP-29 is a "No Action" site because the original area of contamination was completely excavated and covered with concrete (WINCO 1993c, DOE et al. 1994b).

4.8.1.9 CPP-39. Site CPP-39 consisted of a hydrofluoric acid storage tank, a concrete containment vault, and a 38-m (125-ft) tile line connected to the dry well. The storage tank was used as a makeup tank to provide hydrofluoric acid to the CPP-601 dissolution process. The tank was also used to receive off-specification hydrofluoric acid where it was either adjusted to meet specifications or neutralized and discharged to a dry well. The dry well and vault both contained limestone rock to neutralize the

hydrofluoric acid. No radioactive constituents were associated with this process. The system was used from 1967 to 1984 and was removed in 1990; the clay tile pipe was removed in 1993. Sampling results and subsequent risk analysis indicate that current residential risks are acceptable. Cumulative risks from all contaminants at all depths evaluated were below a HI of 1 or the 1×10^{-4} carcinogenic risk levels. The Agencies have determined that Site CPP-39 is a "No Action" site because the risks are considered acceptable (DOE-ID 1997b).

4.8.1.10 CPP-40. Site CPP-40 is the location of a historic acid neutralization pit and associated piping. It consisted of a 19-m (62-ft) long drain pipe, a neutralization pit (lime pit), and a discharge pipe. The drain pipe led from a drip pan in CPP-601 that collected spills of hydrofluoric acid and other miscellaneous chemicals. The discharge from CPP-601 was discontinued in 1985 but water continued to flow into the neutralization pit until 1990. The drain pipe, neutralization pit, and discharge pipe have been removed. No radionuclides were detected in the material removed. The analysis of samples collected could not confirm the presence of residual contamination because only two out of three samples measured Cs-137 at levels slightly above background and below the risk-based concentration.

The Agencies have determined that Site CPP-40 is a "No Action" site because no source remains at this site and the maximum measured Cs-137 concentration is 1.3 pCi/g which is below the 1×10^{-4} risk-based concentration (WINCO 1993d and DOE-IDE 1997b).

4.8.1.11 CPP-41b. Site CPP-41b consists of a pit where oils and organic materials were placed in metal drip pans and ignited for fire brigade practice. The training pit is no longer in use. CPP-41b has been totally excavated and partially covered by Building CPP-666. No samples were taken from this site; therefore, no quantitative risk assessment was performed. The Agencies have determined that Site CPP-41b is a "No Action" site because the site has been excavated and removed.

4.8.1.12 CPP-42. Site CPP-42 is a drainage ditch that is west of CPP-637 and was originally designed to handle precipitation run-off. It was suspected that some nonradioactive laboratory waste had been disposed to the surface soil at this site. The Agencies have determined that Site CPP-42 is a "No Action" site because the calculated HI was less than one (LMITCO 1994).

4.8.1.13 CPP-45. Site CPP-45 was a storage area for various acids (HCL, HNO₃, HF, and H₂SO₄) and aluminum nitrate. During the history of operation in the CPP-621 area, five releases were documented and other spills or releases were suspected. The samples collected and ensuing risk assessment indicated that the contaminant levels were all below an HI of 1. The Agencies have determined that Site CPP-45 is a "No Action" site because the calculated risks were acceptable (WINCO 1993e).

4.8.1.14 CPP-46. Site CPP-46 is an area that was contaminated by a 1,700L (450 gal) spill of simulated zirconium fluoride waste. This simulated zirconium fluoride waste was being used as a nonradioactive feed stock for process testing. Following the release, the waste was neutralized and contaminated soils were removed. Subsequent soil samples confirmed that most of the affected soils were removed. The highest Cs-137 concentration was 2 pCi/g. The only remaining soil that was clearly contaminated was later entirely removed during excavation for footings of the concrete slabs on which the tanks now sit. The Agencies have determined that Site CPP-46 is a "No Action" site because the source has been removed and the current residential risks are considered acceptable (LITCO 1994, and DOE-ID 1997b).

4.8.1.15 CPP-47. Site CPP-47 is an area used to store high molar hydrofluoric acid. One to three 208-L (55-gal) drums were stored on pallets. Sometime in 1984, a small spill (approximately 7.5 L

[2 gal]) was known to have occurred. The area was sampled and the analysis showed that although high fluoride concentrations were observed, but they were below risk-based levels. The Agencies have determined that Site CPP-47 is a "No Action" site because the calculated HI is much less than 1 (WINCO 1992x).

4.8.1.16 CPP-49. Site CPP-49 is the site of soils underneath an active transformer yard that contained three PCB transformers. Visual evidence of leaks lead to sampling the concrete pads and surrounding soil. Sampling results indicate that the soil contained less than 0.1 ppm PCBs. One concrete pad sample contained 29.1 ppm PCBs. Subsequent sealing activities completed on the transformer pad have resulted in encapsulation of the pad within a larger resultant concrete pad structure. The Agencies have determined that Site CPP-49 and the soils under the transformer pad is a "No Action" site because the PCB concentrations observed in the soil were less than the CERCLA cleanup criteria for PCBs. In addition, the concrete pad was sealed and incorporated into a larger concrete pad (WINCO 1992a).

4.8.1.17 CPP-50. Site CPP-50 is the location of soils beneath a PCB transformer pad. The transformer contained 874 L (231 gal) of 400 ppm PCB oil. Leakage was noted during an inspection of the transformer in 1985. The leaked oil was isolated on the transformer concrete pad and did not impact the surrounding soil. The transformer was removed and disposed at an approved off-Site disposal facility. The Agencies have determined that Site CPP-50 is a "No Action" site because there is no evidence that contamination spread to the surrounding soil (WINCO 1992a).

4.8.1.18 CPP-51. Site CPP-51 is defined as the soil below a storage area for PCB-transformers, contaminated soil, debris, and concrete from the ICPP Utilities Replacement and Expansion Project. The storage area was unpaved. During the upgrade project, two transformers leaked onto plastic sheeting. The sheeting, transformers, and debris have been removed from the site. The PCB concentrations in the soil are less than the 1 ppm cleanup criteria specified by TSCA for unrestricted access areas (40 CFR 761.125 (c)(4)(v)). Of the eight samples collected, the maximum PCB concentration observed was 0.120 ppm. The Agencies have determined that CPP-51 is a "No Action" site because the PCB contamination is below the TSCA cleanup standards (WINCO 1992a).

4.8.1.19 CPP-53. Site CPP-53 was an area used by a painting subcontractor for the storage of approximately 30 to 40 drums of paint and paint solvents. In 1983, the stored materials were removed to an EPA approved disposal facility and the area was covered with 61 to 76 cm (24 to 30 in.) of gravel. The area was subsequently used as a construction laydown area and vehicle parking. There are no documented releases at this site. Sample results did not indicate any contamination above detection limits. The Agencies have determined that Site CPP-53 is a "No Action" site due to the lack of an apparent source (WINCO 1992g).

4.8.1.20 CPP-54. Site CPP-54 is an area that was used to store approximately 30 to 40 drums of organic solvent and used oil. There are no known releases from the drums. Analysis of soil samples collected did not reveal any contamination above risk-based levels. The Agencies have determined that Site CPP-54 is a "No Action" site due the lack of an apparent source (WINCO 1992h).

4.8.1.21 CPP-56. Site CPP-56 is an area where a nitric acid leak occurred in a transfer line in 1968. The nitric acid was neutralized prior to disposal and was nonradioactive. In 1986-87, the site was excavated to support construction of CPP-796. Any residual contamination would have been blended with backfill soil as part of construction of CPP-796. The Agencies have determined that Site CPP-56 is a "No Action" site because the HI was qualitatively determined to be less than 1, and the residual contamination was removed (LITCO 1994).

4.8.1.22 CPP-57. Site CPP-57 is a sulfuric acid tank. Approximately 189 L (50 gal) of sulfuric acid spilled on the ground in 1984, and 17,034 L (4,500 gal) spilled in 1985. The soil was neutralized and removed; any residual acid that was not removed would have been naturally neutralized by the soils. The Agencies have determined that Site CPP-57 is a "No Action" site because no source remains and the HI was qualitatively determined to be less than one (WINCO 1992i).

4.8.1.23 CPP-59. Site CPP-59 consists of soils within a containment berm surrounding two 75,708 L (20,000 gal) kerosene storage tanks. Contamination of CPP-59 occurred in two separate kerosene releases that occurred in 1983; the combined release was 984 L (260 gal) of kerosene. There is no documentation of cleanup following the two discharges. The kerosene most likely evaporated or infiltrated into the soil. Nine borehole samples were collected to characterize CPP-59. Xylenes were the only volatile organic compounds (VOCs) detected in the soils at concentrations ranged between 1 and 11 µg/kg. Risks were calculated to be less than 1×10^{-4} and an HI less than 1. The Agencies have determined Site CPP-59 is a "No Action" site because the risk and HIs are less than 1×10^{-4} and one respectively. (WINCO 1992j, WINCO 1994a.)

4.8.1.24 CPP-62. Site CPP-62 is an area where paint solvents were discarded to the soil. In 1985, a cleanup of this area was conducted in which 28 drums of contaminated soil were removed and shipped to a commercial hazardous waste facility. Subsequently, in 1987, the area was excavated for the construction of the 7th Calcined Solids Storage Vault. The Agencies have determined that Site CPP-62 is a "No Action" site because the source was removed and additional excavation has been conducted (WINCO 1992k).

4.8.1.25 CPP-63. Site CPP-63 is the site of a hexone spill in 1982. During excavation for cathodic protection maintenance or repair, a hexone line was cut by a backhoe; approximately 189 L (50 gal) was released. There were no reports indicating if the soil was removed after the spill. Three soil samples were collected along the length of the broken line. The samples were analyzed for VOCs including hexone. The VOC concentrations were less than the method detection limits. The Agencies have determined that Site CPP-63 is a "No Action" site because the HI is less than 1 (WINCO 1993f).

4.8.1.26 CPP-64. Site CPP-64 is the site of a hexone spill in which a forklift operator punctured a drum of hexone. About 208L (55 gal) of hexone leaked onto the asphalt. Vermiculite was used to absorb most of the hexone and the vermiculate was collected and disposed. Soil samples from five boreholes were analyzed and revealed that no hexone was detected significantly below risk-based concentrations. The other contaminants detected were below an HI of 1. The Agencies have determined that Site CPP-64 is a "No Action" site because the initial spill was small, the source was removed, and the analytical results indicate acceptable risks (WINCO 1992l).

4.8.1.27 CPP-78. Site CPP-78 consists of a 2.3 m² (25 ft²) area of potentially radioactively-contaminated soil located west of building CPP-693 and east of the Dry Fuel Storage Area. Contamination was discovered during excavation activities. The origin of the contamination is not known but is presumed to have resulted from a surface spill. Two soil borings were drilled and soil samples collected and analyzed. The analysis of the samples showed that the radiation levels barely exceeded background values and are below 1×10^{-4} residential risk-based concentrations. The Agencies have determined that Site CPP-78 is a "No Action" site because no discernable source could be found and the risk levels are acceptable (LITCO 1995).

4.8.1.28 CPP-88. Site CPP-88 consists of the radioactively-contaminated soils within the current INTEC security fence that have not been attributed to another specific release site. Investigation of CPP-88 included extensive document reviews and analysis of samples collected from 16 boreholes from various INTEC locations. The maximum Cs-137 concentration was 36.6 pCi/g and the 95% UCL for

Cs-137 was 14.1 pCi/g. The Agencies have determined that Site CPP-88 is a "No Further Action" site because it is above the current 1×10^{-4} residential risk range and below the year 2095 1×10^{-4} residential risk range (DOE-ID 1997b).

4.8.1.29 CPP-90. Site CPP-90 consists of soil contaminated by leaks in service waste transfer lines between Building CPP-709 and the CPP-23 injection well. The original concrete pipeline was replaced in 1959-1960 with a vitrified clay line. The vitrified clay line was replaced in 1969 with a stainless steel line that was partially replaced in 1982 with another stainless steel line. In 1986, the line was permanently taken out of service and abandoned in place. Three soil borings were drilled to support the BRA. Soil analytical data from those borings indicate a maximum Cs-137 concentration of 7.5 pCi/g and a 95% UCL for Cs-137 of 7.5 pCi/g. The Agencies have determined that Site CPP-90 is a "No Further Action" site because the future residential risk is acceptable but the current residential risk is not acceptable. (DOE-ID 1997b). This site will be reviewed under the CERCLA 5-year review to ensure that if this pipe is removed in the future, any contamination discovered will be properly addressed.

4.8.1.30 CPP-95. Site CPP-95 is the wind-blown plume and consists of areas outside the current INTEC perimeter fence that are potentially contaminated as a result of wind dispersion of radionuclides from facility operations. The area delineated as Site CPP-95 (i.e., the WAG 3 AOC) is shown in Figure 1-10. Surveys and soil sampling were conducted as part of the 10-06 RI and EE/CA. The 95% upper confidence level (UCL) 95% concentration for Cs-137 within the AOC is 5.9 pCi/g. Site CPP-95 is a "No Further Action" site, because it is above the current 1×10^{-4} residential risk range and below the year 2095 1×10^{-4} residential risk range (DOE-ID 1997b).

4.8.2 "No Action" Sites Designated in the FFA/CO

4.8.2.1 CPP-43—Grease Pit South of CPP-637. This pit was used for the disposal of an unknown quantity of oil and grease. The site occupies an area of 141 m² (1,520 ft²). The site was filled, and a building (CPP-651) was constructed on the site in the mid-1970s. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991a).

4.8.2.2 CPP-52. Site CPP-52 was a pickling shed used to treat piping and other structural materials with mineral acids during the original construction of the ICPP. The site involved an area of 13.4 m² (144 ft²). The building was a temporary structure located east of CPP-631. Spent pickling solutions were disposed in liquid waste storage tanks; there are no records of spills or leaks. The building was demolished in 1954. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991b).

4.8.2.3 CPP-70. Site CPP-70 is a septic tank located east of CPP-655. This septic tank was used to treat sanitary waste generated at the craft shop and warehouse building. Operations in the building included equipment maintenance and repair, welding, and carpentry. There are no drains located in the work areas and there is no evidence hazardous constituents were disposed in the septic system. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991c).

4.8.2.4 CPP-71. Site CPP-71 consists of the seepage pits west of CPP-656. These pits were used in conjunction with the septic tank located east of CPP-655 (CPP-70). There are no records of hazardous constituent releases. A "No Action" decision documentation package was placed in the Administrative

Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991c).

4.8.2.5 CPP-72. Site CPP-72 consists of the CPP-758 cesspool east of CPP-651. Site CPP-72 used to treat sanitary sewage from temporary office trailers. The trailers have been disconnected and the system is no longer in use. Because the septic system was only connected to office restrooms, it is unlikely hazardous constituents were disposed in the system. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991d).

4.8.2.6 CPP-73. Site CPP-73 is a cesspool located east of and connected to temporary building CPP-T-5, which was used as a lunch/break room by a construction contractor. No hazardous materials have been stored at this location, and no hazardous wastes are reported to have been disposed into the unit. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991e).

4.8.2.7 CPP-74. Site CPP-74 is a seepage pit and septic tank located west of Building CPP-626. This septic system was constructed in the early 1970s and is used to treat sanitary waste from the fuel receiving and storage building and storage basin change room. The building contains a cafeteria, restroom facilities, showers, and office space. No operations involving hazardous materials are known to have occurred in the building and it is unlikely hazardous wastes have entered the system. The Summary Assessment recommending "No Action" for this site was approved in 1988. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991f).

4.8.2.8 CPP-75. Site CPP-75 consists of the septic tank west of Building CPP-603. It was built in the early 1950s and received sanitary wastes before operation of CPP-74. The system was connected to a restroom facility, which was physically isolated from hazardous materials operations. The primary hazardous materials used in operations that might have been associated with this unit were mineral acids. The Summary Assessment recommending "No Action" for this site was approved in 1988. A "No Action" decision documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991g).

4.8.2.9 CPP-76. Site CPP-76 consists of the septic tank and cesspool west of Building CPP-659 which was used to treat sanitary wastewater from the old calcining facility, built in 1960. There are no records of hazardous wastes entering the system. The septic tanks are currently being removed in support of the NO_x Abatement Facility construction. The Summary Assessment recommending "No Action" for this site was approved in 1988. A "No Action" documentation package was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991h).

4.8.2.10 CPP-77. Site CPP-77 is a seepage pit and cesspool located north of Building CPP-662. There are no known records that indicate hazardous materials ever entered this system. The Summary Assessment recommending "No Action" for this site was approved in 1988. A "No Action" documentation package for this site was placed in the Administrative Record in September 1991; in December 1991, the Agencies formally determined that this site is a "No Action" site in the FFA/CO (WINCO 1991i).

4.9 New Soil Release Sites

The Agencies have added four release sites (CPP-96, -97, -98, and -99) to the FFA/CO action plan list of sites for OU 3-13. Site CPP-96 is a consolidation of all of the previously identified release and the intervening interstitial soils within the CPP-96 boundary. Sites CPP-97, -98, and -99 consist of soil and debris that originated from the Tank Farm upgrade project or the Building CPP-604 egress tunnel project, both of which were performed between 1993 and 1995. Previously, this material was managed as low-level radioactive waste; however, recent discussions between the Agencies has resulted in a realization that because the Tank Farm waste may be RCRA listed and the contaminated soil and debris may also be RCRA listed.

Site CPP-96, is considered part of the Group 1 Tank Farm Soils sites and will be addressed by both the Tank Farm Interim Action under OU 3-13 and the final action selected under OU 3-14. Sites CPP-97, CPP-98, and CPP-99 will be remediated under the selected remedy for Group 3 other surface soils in this ROD.

4.9.1 CPP-96—Tank Farm Interstitial Soils

Site CPP-96 is a consolidation of all of the previously identified release and the intervening interstitial soils within the CPP-96 boundary. Previously, the INTEC Tank Farm area included 14 known release sites. However, the arbitrary boundaries of each release site did not include all of the contaminated soils in the Tank Farm area; contamination was present outside of the initial known release sites. Site CPP-96 includes all of the interstitial soils within the Tank Farm area

4.9.2 CPP-97—Tank Farm Soil Stockpiles

Site CPP-97 consists of two tarp-covered soil stockpiles that originated from the Tank Farm upgrade project. One pile contains approximately 1,093 m³ (1,430 yd³) of radionuclide-contaminated soils. Radiation measurements at the time of generation ranged between 0 and 3 mR/hr. The second soil stockpile contains approximately 53 m³ (70 yd³) of radionuclide-contaminated soils with 3 to 50 mR/hr radiation readings. These soils will be included in Group 3 soils for disposal at the ICDF.

4.9.3 CPP-98—Tank Farm Shoring Boxes

The Tank Farm upgrade project used wooden shoring during excavation. Because the soil was contaminated, the shoring also became contaminated. The contaminated shoring was placed into 118 wooden radioactive waste boxes that have been managed as low-level radioactive waste. These soils and shoring will be included in Group 3 soils for disposal at the ICDF.

4.9.4 CPP-99—Boxed Soil

In addition to the aforementioned waste, the Tank Farm upgrade and CPP-604 tunnel egress projects generated 59 boxes of radionuclide-contaminated soil that have been managed as low-level radioactive waste. These boxed soils will be included in Group 3 for disposal at the ICDF.

4.10 Sites Addressed Under Other WAGs or Regulatory Programs

Six sites, CPP-38, CPP-61, CPP-65, CPP-66, CPP-81, and CPP-82, listed under the FFA/CO as part of WAG 3 are not included in the aforementioned seven groups. These sites were investigated as

part of the WAG 3 RI/FS process. The Agencies have determined that these sites are most appropriately dispositioned outside OU 3-13, either in other programs or under other CERCLA OUs.

4.10.1 CPP-38—Asbestos in Nine INTEC Buildings

Site CPP-38 is part of OU 3-04 and consists of what was believed to be friable transite asbestos on the roof and walls in nine buildings at INTEC. A Track 1 decision document determined that the asbestos is a nonfriable form, thus representing a low risk to human health and the environment and poses no threat of release until building D&D occurs (WINCO 1993g). Therefore, the Agencies decided that this site would be more appropriately administered and remediated (if necessary) under the INEEL Asbestos Abatement Program rather than the FFA/CO. INEEL asbestos management is conducted in accordance with NESHAPS.

4.10.1.1 CPP-61. Site CPP-61 is an area within the CPP-718 transformer yard where a PCB oil spill occurred in the early 1980's. Approximately 1,510 L (400 gal) of PCB oil was spilled. The PCB concentration in the oil was 179 ppm. Most of the spill was contained, however, some spilled oil that contaminated the surrounding soil. In 1985, the spill area was cleaned up; approximately 40 drums of soil and debris were removed. A new transformer and concrete pad have been installed over the site. Three soil borings were drilled and soil samples analyzed for radionuclides. The radionuclides found were below risk-based soil concentrations (WINCO 1992a). The Agencies have determined that CPP-61 will be transferred to OU 3-14 for further evaluation because of the uncertain amount of PCB contamination that may remain under the concrete pad.

4.10.2 CPP-65—Sewage Treatment Plant Lagoon

Site CPP-65 is the lagoons for the INTEC Sewage Treatment Plant (STP). The plant treats sanitary waste from 31 INTEC facilities. The STP began operation in 1984 and is currently in use. The lagoons include four infiltration/percolation trenches that are used to dispose of treated sanitary wastewater. The lagoons were investigated as part of the RI/BRA (DOE-ID 1997b, Section 9.3).

The STP does not contain COCs in concentrations that present a threat to human health and the environment either through surface exposure or via transport to the Snake River Plain Aquifer. The Agencies have decided that final closure of the STP lagoons will be most appropriately handled under the Idaho Wastewater Land Application Rules (Idaho Administrative Procedures Act [IDAPA] 16.01.02); this decision was based on the low concentration of contaminants observed in lagoon water and the continued use of the lagoons.

4.10.3 CPP-66—Steam Plant Fly Ash Pit

Site CPP-66 is the coal-fired Steam Generation Facility Fly Ash Pit located southeast of the INTEC. The pit has been used for the disposal of fly ash produced by the INTEC Steam Generation Facility since 1984. The ash in the pit contains natural radionuclides and metals derived from coal and limestone. Site CPP-66 was evaluated using the Track 1 process in 1993 and recommended for "No Further Action" based on a human health risk evaluation. More specifically, the measured concentrations of radionuclides and inorganics in the fly ash are sufficiently low as to pose a negligible risk under both residential and occupational scenarios. Furthermore, the low permeability of the dried ash and low rainfall at the INEEL provide little driving force for leaching of ash constituents to the groundwater (WINCO 1993h). Subsequently, an ecological risk screening was performed during the OU 3-13 RI/BRA, which suggested that a risk to environmental receptors may exist from the metals present in the ash. The Agencies have determined that the site will be transferred to OU 10-04 for further evaluation and remediation, if necessary.

4.10.3.1 CPP-81. Site CPP-81 is an abandoned line from the 30-cm (12-in.) Calciner Pilot Plant. The line, located approximately 0.6- to 0.9-m (2- to 3-ft) bls, contained simulated calcine that became plugged in the line following a test run. During the fall of 1993, the line was cleaned as part of a time-critical removal action. The line was flushed with hot acid to remove the simulated calcine. No leaks were observed during the removal action indicating that no previous release to the environment had occurred. The final water rinse was analyzed and found to not contain contaminants above toxicity characteristic leaching procedure (TCLP) limits. The Agencies have determined the Site CPP-81 will be transferred to OU 3-14 for further evaluation because of the lack of sufficient data to make a final decision.

4.10.3.2 CPP-82. Site CPP-82 is the location of three waste water spills (designated Sites A, B, and C) caused by rupturing of previously abandoned underground lines. The lines were ruptured during excavation activities. In the spill associated with Site A, an estimated 9.4 L (2.5 gal) of low-level radioactive waste escaped; the abandoned line and contaminated soil associated with the leak were removed and disposed. Sites B and C are associated with spills of nonradioactive, nonhazardous waste water; these spills occurred during the repair activities associated with Site A. The Agencies have determined the Site CPP-82 will be transferred to OU 3-14 for further evaluation because of the lack of sufficient data to make a final decision.